

STIC Search Report

EIC 1700

STIC Database Tracking Number: 198894

TO: John Hardee
Location: REM 9A41
Art Unit : 1751
August 22, 2006

Case Serial Number: 10/761821

From: Mei Huang
Location: EIC 1700
REMSSEN 4B28
Phone: 571/272-3952
Mei.huang@uspto.gov

Search Notes

Examiner Hardee,

Please feel free to contact me if you have any questions or if you would like to refine the search query,

Thank you for using STIC services!

Mei Huang



Access DB# 198894

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HARDEE Examiner #: _____ Date: 8/16/06
 Art Unit: 1751 Phone Number 30 21318 Serial Number: 15761, 824
 Mail Box and Bldg/Room Location: PA41 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Whatever you can find. Thanks

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>M&H</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/> _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>8/22/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext <input checked="" type="checkbox"/> _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

107761, 821

1. An antistatic polymer composition comprising

- a) a polymer substrate selected from the group consisting of the polyolefins, polyesters, polyamides and polylactic acids and ^① ^② ^③ ^④ ^⑤ ^⑥ ^⑦ ^⑧ ^⑨ ^⑩ ^⑪ ^⑫ ^⑬ ^⑭ ^⑮ ^⑯ ^⑰ ^⑱ ^⑲ ^⑳ ^㉑ ^㉒ ^㉓ ^㉔ ^㉕ ^㉖ ^㉗ ^㉘ ^㉙ ^㉚ ^㉛ ^㉜ ^㉝ ^㉞ ^㉟ ^㊱ ^㊲ ^㊳ ^㊴ ^㊵ ^㊶ ^㊷ ^㊸ ^㊹ ^㊺ ^㊻ ^㊼ ^㊽ ^㊾ ^㊿ ¹ ² ³ ⁴ ⁵ ⁶ ⁷ ⁸ ⁹ ¹⁰ ¹¹ ¹² ¹³ ¹⁴ ¹⁵ ¹⁶ ¹⁷ ¹⁸ ¹⁹ ²⁰ ²¹ ²² ²³ ²⁴ ²⁵ ²⁶ ²⁷ ²⁸ ²⁹ ³⁰ ³¹ ³² ³³ ³⁴ ³⁵ ³⁶ ³⁷ ³⁸ ³⁹ ⁴⁰ ⁴¹ ⁴² ⁴³ ⁴⁴ ⁴⁵ ⁴⁶ ⁴⁷ ⁴⁸ ⁴⁹ ⁵⁰ ⁵¹ ⁵² ⁵³ ⁵⁴ ⁵⁵ ⁵⁶ ⁵⁷ ⁵⁸ ⁵⁹ ⁶⁰ ⁶¹ ⁶² ⁶³ ⁶⁴ ⁶⁵ ⁶⁶ ⁶⁷ ⁶⁸ ⁶⁹ ⁷⁰ ⁷¹ ⁷² ⁷³ ⁷⁴ ⁷⁵ ⁷⁶ ⁷⁷ ⁷⁸ ⁷⁹ ⁸⁰ ⁸¹ ⁸² ⁸³ ⁸⁴ ⁸⁵ ⁸⁶ ⁸⁷ ⁸⁸ ⁸⁹ ⁹⁰ ⁹¹ ⁹² ⁹³ ⁹⁴ ⁹⁵ ⁹⁶ ⁹⁷ ⁹⁸ ⁹⁹ ¹⁰⁰ ¹⁰¹ ¹⁰² ¹⁰³ ¹⁰⁴ ¹⁰⁵ ¹⁰⁶ ¹⁰⁷ ¹⁰⁸ ¹⁰⁹ ¹¹⁰ ¹¹¹ ¹¹² ¹¹³ ¹¹⁴ ¹¹⁵ ¹¹⁶ ¹¹⁷ ¹¹⁸ ¹¹⁹ ¹²⁰ ¹²¹ ¹²² ¹²³ ¹²⁴ ¹²⁵ ¹²⁶ ¹²⁷ ¹²⁸ ¹²⁹ ¹³⁰ ¹³¹ ¹³² ¹³³ ¹³⁴ ¹³⁵ ¹³⁶ ¹³⁷ ¹³⁸ ¹³⁹ ¹⁴⁰ ¹⁴¹ ¹⁴² ¹⁴³ ¹⁴⁴ ¹⁴⁵ ¹⁴⁶ ¹⁴⁷ ¹⁴⁸ ¹⁴⁹ ¹⁵⁰ ¹⁵¹ ¹⁵² ¹⁵³ ¹⁵⁴ ¹⁵⁵ ¹⁵⁶ ¹⁵⁷ ¹⁵⁸ ¹⁵⁹ ¹⁶⁰ ¹⁶¹ ¹⁶² ¹⁶³ ¹⁶⁴ ¹⁶⁵ ¹⁶⁶ ¹⁶⁷ ¹⁶⁸ ¹⁶⁹ ¹⁷⁰ ¹⁷¹ ¹⁷² ¹⁷³ ¹⁷⁴ ¹⁷⁵ ¹⁷⁶ ¹⁷⁷ ¹⁷⁸ ¹⁷⁹ ¹⁸⁰ ¹⁸¹ ¹⁸² ¹⁸³ ¹⁸⁴ ¹⁸⁵ ¹⁸⁶ ¹⁸⁷ ¹⁸⁸ ¹⁸⁹ ¹⁹⁰ ¹⁹¹ ¹⁹² ¹⁹³ ¹⁹⁴ ¹⁹⁵ ¹⁹⁶ ¹⁹⁷ ¹⁹⁸ ¹⁹⁹ ²⁰⁰ ²⁰¹ ²⁰² ²⁰³ ²⁰⁴ ²⁰⁵ ²⁰⁶ ²⁰⁷ ²⁰⁸ ²⁰⁹ ²¹⁰ ²¹¹ ²¹² ²¹³ ²¹⁴ ²¹⁵ ²¹⁶ ²¹⁷ ²¹⁸ ²¹⁹ ²²⁰ ²²¹ ²²² ²²³ ²²⁴ ²²⁵ ²²⁶ ²²⁷ ²²⁸ ²²⁹ ²³⁰ ²³¹ ²³² ²³³ ²³⁴ ²³⁵ ²³⁶ ²³⁷ ²³⁸ ²³⁹ ²⁴⁰ ²⁴¹ ²⁴² ²⁴³ ²⁴⁴ ²⁴⁵ ²⁴⁶ ²⁴⁷ ²⁴⁸ ²⁴⁹ ²⁵⁰ ²⁵¹ ²⁵² ²⁵³ ²⁵⁴ ²⁵⁵ ²⁵⁶ ²⁵⁷ ²⁵⁸ ²⁵⁹ ²⁶⁰ ²⁶¹ ²⁶² ²⁶³ ²⁶⁴ ²⁶⁵ ²⁶⁶ ²⁶⁷ ²⁶⁸ ²⁶⁹ ²⁷⁰ ²⁷¹ ²⁷² ²⁷³ ²⁷⁴ ²⁷⁵ ²⁷⁶ ²⁷⁷ ²⁷⁸ ²⁷⁹ ²⁸⁰ ²⁸¹ ²⁸² ²⁸³ ²⁸⁴ ²⁸⁵ ²⁸⁶ ²⁸⁷ ²⁸⁸ ²⁸⁹ ²⁹⁰ ²⁹¹ ²⁹² ²⁹³ ²⁹⁴ ²⁹⁵ ²⁹⁶ ²⁹⁷ ²⁹⁸ ²⁹⁹ ³⁰⁰ ³⁰¹ ³⁰² ³⁰³ ³⁰⁴ ³⁰⁵ ³⁰⁶ ³⁰⁷ ³⁰⁸ ³⁰⁹ ³¹⁰ ³¹¹ ³¹² ³¹³ ³¹⁴ ³¹⁵ ³¹⁶ ³¹⁷ ³¹⁸ ³¹⁹ ³²⁰ ³²¹ ³²² ³²³ ³²⁴ ³²⁵ ³²⁶ ³²⁷ ³²⁸ ³²⁹ ³³⁰ ³³¹ ³³² ³³³ ³³⁴ ³³⁵ ³³⁶ ³³⁷ ³³⁸ ³³⁹ ³⁴⁰ ³⁴¹ ³⁴² ³⁴³ ³⁴⁴ ³⁴⁵ ³⁴⁶ ³⁴⁷ ³⁴⁸ ³⁴⁹ ³⁵⁰ ³⁵¹ ³⁵² ³⁵³ ³⁵⁴ ³⁵⁵ ³⁵⁶ ³⁵⁷ ³⁵⁸ ³⁵⁹ ³⁶⁰ ³⁶¹ ³⁶² ³⁶³ ³⁶⁴ ³⁶⁵ ³⁶⁶ ³⁶⁷ ³⁶⁸ ³⁶⁹ ³⁷⁰ ³⁷¹ ³⁷² ³⁷³ ³⁷⁴ ³⁷⁵ ³⁷⁶ ³⁷⁷ ³⁷⁸ ³⁷⁹ ³⁸⁰ ³⁸¹ ³⁸² ³⁸³ ³⁸⁴ ³⁸⁵ ³⁸⁶ ³⁸⁷ ³⁸⁸ ³⁸⁹ ³⁹⁰ ³⁹¹ ³⁹² ³⁹³ ³⁹⁴ ³⁹⁵ ³⁹⁶ ³⁹⁷ ³⁹⁸ ³⁹⁹ ⁴⁰⁰ ⁴⁰¹ ⁴⁰² ⁴⁰³ ⁴⁰⁴ ⁴⁰⁵ ⁴⁰⁶ ⁴⁰⁷ ⁴⁰⁸ ⁴⁰⁹ ⁴¹⁰ ⁴¹¹ ⁴¹² ⁴¹³ ⁴¹⁴ ⁴¹⁵ ⁴¹⁶

- b) a combination of**

- i) at least one permanent antistatic additive selected from the group consisting of the polyetheresteramides and clm. 2-8

- ii) at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides. C1m. 14, 18, 19

2. A composition according to claim 1 in which the polyetheresteramides are aliphatic polyetheresteramides.

3. A composition according to claim 1 in which the polyetheresteramides are aromatic polyetheresteramides.

4. A composition according to claim 2 wherein the polyetheresteramide consists essentially of residues derived from (1) a polyamide oligomer having carboxylic end groups and having a number average molecular weight of from about 200 to about 15,000 and (2) a polyoxyalkylene glycol having a number average molecular weight of from about 200 to about 6,000.

5. A composition according to claim 4 where the carboxylic group is derived from adipic, sebacic, terephthalic or isophthalic acids or 3-sulfoisophthalic acid alkali metal and the

polyoxyalkylene glycol is polyethylene glycol.

6. A composition according to claim 3 wherein the polyetheresteramide consists essentially of residues derived from (1) a polyamide oligomer having carboxylic end groups and having a number average molecular weight of from about 200 to about 15,000 and (2) a polyoxyalkylated bisphenol compound having a number average molecular weight of from about 200 to about 6,000.

7. A composition according to claim 6 where the carboxylic group is derived from adipic, sebacic, terephthalic or isophthalic acids or 3-sulfoisophthalic acid alkali metal and wherein the polyoxyalkylated bisphenol compound is a polyoxyalkylated alkylidene bisphenol.

8. A composition according to claim 6 wherein the polyoxyalkylated bisphenol is the ethylene oxide adduct of bisphenol A.

9. A composition according to claim 1 where the migratory antistatic additives are selected from the group consisting of the alkylsulfonic acid salts.

10. A composition according to claim 9 where the alkylsulfonic acid salts are straight or branched chain C_2 - C_{22} alkylsulfonic acid salts.

11. A composition according to claim 9 where the alkylsulfonic acid salts are straight or branched chain C_{10} - C_{18} alkylsulfonic acid salts.

12. A composition according to claim 9 where the alkylsulfonic acid salts comprise a counterion selected from the group consisting of the alkali metal cations, alkaline earth metal cations and zinc cation.

13. A composition according to claim 9 where the alkylsulfonic acid salts comprise a counterion selected from the group consisting of the cations of Li, Na, K, Ca, Mg and Zn.

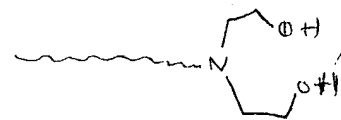
14. A composition according to claim 9 where the alkylsulfonic acid salts are a mixture of C₁₀-C₁₈alkylsulfonic acid sodium salts, CAS # 68037-49-0.

15. A composition according to claim 1 where the migratory antistatic additives are selected from the group consisting of the alkyl diethanolamines and the alkyl diethanolamides.

16. A composition according to claim 15 where alkyl is straight or branched chain C₂-C₂₂alkyl.

17. A composition according to claim 15 where alkyl is straight or branched chain C₁₀-C₁₈ alkyl.

18. A composition according to claim 15 where the alkyl diethanolamines and the alkyl diethanolamides are hydrogenated tallow bis(2-hydroxyethyl)amine, tridecyl bis(2-hydroxyethyl)amine, pentadecyl bis(2-hydroxyethyl)amine, lauryl bis(2-hydroxyethyl)amine, hydrogenated tallow bis(2-hydroxyethyl)amide, tridecyl bis(2-hydroxyethyl)amide, pentadecyl bis(2-hydroxyethyl)amide or lauryl bis(2-hydroxyethyl)amide. Alkyl-
61291-44-4
68155-05-6
→ IN



19. A composition according to claim 15 where the migratory additive is lauryl bis(2-hydroxyethyl)amide, CAS# 120-40-1.

20. A composition according to claim 1 where the polymer substrate is polyethylene, polypropylene, polyethylene/polypropylene copolymer, polyethylene terephthalate, polybutylene terephthalate, polyethylene naphthalate, polyamide 4, polyamide 6, polyamide 6,6, polyamide 6,10, polyamide 6,9, polyamide 6,12, polyamide 4,6, polyamide 12,12, polyamide 11, polyamide 12 and polylactic acid.

21. A composition according to claim 1 where the polyetheresteramides of component i) are present from about 0.5% to about 15% by weight, based on the weight of the polymer substrate.

22. A composition according to claim 1 where the polyetheresteramides of component i) are present from about 1% to about 10% by weight, based on the weight of the polymer substrate.

23. A composition according to claim 1 where the migratory additives of component ii) are present from about 0.05% to about 2% by weight, based on the weight of the polymer substrate.

24. A composition according to claim 1 where the migratory additives of component ii) are present from about 0.05% to about 1% by weight, based on the weight of the polymer substrate.

25. An antistatic additive mixture comprising

i) at least one permanent antistatic additive selected from the group consisting of the polyetheresteramides and

ii) at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides.

26. A process for the preparation of antistatically finished polymers selected from the group consisting of polyolefins, polyesters, polyamides and polylactic acids,

which process comprises mixing an additive mixture comprising

i) at least one permanent antistatic additive selected from the group consisting of the polyetheresteramides and

ii) at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides,

as such or in the form of its individual components and together with optional further additives with said polymers in calenders, mixers, kneaders or extruders.

tas/cgc2139a



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- > I am an examiner in Workgroup: Example: 1713
> Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- > Relevant prior art **not** found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:30:07 ON 22 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

=> d his ful

(FILE 'HOME' ENTERED AT 11:17:27 ON 22 AUG 2006)

FILE 'HCAPLUS' ENTERED AT 11:17:54 ON 22 AUG 2006

E US20040171762/PN

L1 1 SEA US2004171762/PN

FILE 'REGISTRY' ENTERED AT 11:20:05 ON 22 AUG 2006

L2 30 SEA (120-40-1/BI OR 24936-74-1/BI OR 24937-16-4/BI OR
L3 1 SEA L2 AND POLYETHYLENE/CN
L4 1 SEA POLYPROPYLENE/CN
L5 1 SEA 9010-79-1/RN
L6 1 SEA 9020-73-9/RN
L7 1 SEA 24968-12-5/RN
L8 1 SEA 25038-59-9/RN
L9 1 SEA 24938-56-5/RN
L10 1 SEA 25038-54-4/RN
L11 1 SEA 32131-17-2/RN
L12 1 SEA 9008-66-6/RN
L13 1 SEA 28757-63-3/RN
L14 1 SEA 36348-71-7/RN
L15 1 SEA 50327-22-5/RN
L16 1 SEA 24936-74-1/RN
L17 4 SEA "(C11H21NO)N"/MF
L18 1 SEA 25035-04-5/RN
L19 6 SEA "(C12H23NO)N"/MF
L20 1 SEA 24937-16-4/RN
L21 1 SEA 68037-49-0/RN
L22 1 SEA 120-40-1/RN
L23 1 SEA 61791-44-4/RN
L24 0 SEA 68155-05-6/RN
L25 1 SEA 25085-53-4/RN

FILE 'HCAPLUS' ENTERED AT 13:43:30 ON 22 AUG 2006

L26 390386 SEA L3 OR POLYETHYLENE# OR PE OR LDPE
L27 181389 SEA L4 OR L25 OR POLYPROPYLENE# OR POLY(A) PROPYLENE# OR
(ISO OR ISOTACTIC OR I) (A) (POLYPROYLENE# OR PP)
L28 40888 SEA L5 OR (ETHYLENE(A) PROPYLENE OR EP OR E(A) P) (2A) (POLYM
? OR COPOLYM? OR RESIN?)
L29 3226 SEA L6 OR (POLYETHYLENE OR PE) (A) NAPHTHALATE#
L30 16312 SEA L7 OR (POLYBUTYLENE OR PB) (A) TEREPHTHALATE#
L31 84043 SEA L8 OR (POLYETHYLENE OR PE) (A) TEREPHTHALATE#
L32 544 SEA L9 OR POLYAMIDE(W) 4
L33 30575 SEA L10 OR POLYAMIDE(W) 6

Specific a), Chr. 20

L34
L35
L36
L37
L38
L39
L40
L41
L42
L43

L44

L45
L46

L47
L48
L49

L50
L51
L52

L53
L54
L55
L56

g) Chr. 1

b) Chr. 14, 18, 19

b) Chr. 1

L34	14462	SEA L11	OR	POLYAMIDE (W) (6 (W) 6)
L35	14494	SEA L11	OR	POLYAMIDE (2A) (6 (W) 6)
L36	2032	SEA L12	OR	POLYAMIDE (2A) (6 (W) 10)
L37	366	SEA L13	OR	POLYAMIDE (2A) (6 (W) 9)
L38	194	SEA L14	OR	POLYAMIDE (2A) (12 (W) 12)
L39	1278	SEA L15	OR	POLYAMIDE (2A) (4 (W) 6)
L40	1361	SEA L16	OR	POLYAMIDE (2A) (6 (W) 12)
L41	3228	SEA L18	OR	POLYAMIDE (A) 11
L42	6311	SEA L20	OR	POLYAMIDE (A) 12
L43	10628	SEA L21	OR	((?SULFONIC OR SULPHONIC) (W) ACID) (2A) (SODIUM OR NA)
L44	1662	SEA L22	OR	(LAURIC OR LAUROYL OR LAURYL) (A) (DIETHANOLAMID E# OR DIETHANOLAMINE#) OR LAUROYLDIETHANOLAMINE#
L45	15	SEA L23	OR	TALLOW (A) (BIS (W) (2 (W) HYDROXYETHYL)) (2A) AMINE#
L46	93	SEA	(N (W) N (W) BIS (W) (2 (W) HYDROXYETHYL)) (2A) AMINE#	
L47	94083	SEA	POLYOLEFIN?	
L48	337530	SEA	POLYESTER?	
L49	169978	SEA	POLYAMIDE?	
L50	76	SEA	POLYETHERESTERAMIDE# OR POLY (A) ETHERESTERAMIDE#	
L51	132	SEA	POLY (A) ETHER (A) ESTER (A) AMIDE#	
L52	8	SEA	POLY (A) ETHER (A) ESTERAMIDE#	
L53	180025	SEA	(?SULFONIC OR ?SOLPHONIC) (A) ACID#	
L54	5535	SEA	(?SULFONIC OR ?SOLPHONIC) (A) ACID# (A) SALT#	
L55	17650	SEA	DIETHANOLAMINE# OR DIETHANOLAMIDE#	
L56	25002	SEA	ANTISTATIC? OR ANTI (A) STATIC? OR STATIC? (2A) (RESIST? OR PROOF? OR INHIBIT?) OR STATICPROOF? OR STATICRESIST? OR STATICINHIBIT?	

FILE 'REGISTRY' ENTERED AT 14:42:32 ON 22 AUG 2006

L57	1	SEA	9011-52-3/RN
L58	1	SEA	9020-32-0/RN
L59	1	SEA	24968-97-6/RN
L60	1	SEA	26062-94-2/RN
L61	1	SEA	26098-55-5/RN
L62	1	SEA	27136-65-8/RN
L63	1	SEA	36497-34-4/RN
L64	1	SEA	50327-77-0/RN

FILE 'HCAPLUS' ENTERED AT 14:45:44 ON 22 AUG 2006

L65	1554	SEA	L57
L66	1480	SEA	L58
L67	571	SEA	L59
L68	14258	SEA	L60
L69	962	SEA	L61
L70	308	SEA	L62
L71	164	SEA	L63
L72	1026	SEA	L64
L73	18588	SEA	((L47 OR L48 OR L49) OR (L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42)) AND ((L50 OR L51 OR L52) OR (L65 OR L66 OR L67 OR L68 OR L69 OR L70 OR L71 OR L72))

L74 231 SEA L73 AND ((L53 OR L54 OR L55) OR (L43 OR L44 OR L45
 OR L46))
 L75 59 SEA L74 AND L56
 L76 1 SEA L1 AND L75
 L77 2266 SEA STATIC?(2A) (HINDER? OR IMPED? OR ARREST? OR REDUC?
 OR REDN# OR SUPPRESS? OR RETARD? OR PROHIBIT? OR
 PREVENT? OR ELIMINAT?)
 L78 0 SEA L74 AND L77
 L79 5 S ANTICLING? OR ANTI(W)CLING?
 L80 0 S L74 AND L79

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 15:30:15 ON 22 AUG 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d l75 ibib abs hitstr hitind 1-59

L75 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:13406 HCAPLUS

DOCUMENT NUMBER: 144:109131

TITLE: Thermoplastic resin compositions for molded
 articles with good impact and chem. resistance,
 surface appearance, and **antistatic**
 properties or charge controlling properties

INVENTOR(S): Mawatari, Masaaki; Iwasaki, Yoshihiro

PATENT ASSIGNEE(S): Techno Polymer Co., Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006001136	A1	20060105	WO 2005-JP8954	20050517

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP,
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
 SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
 US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
 IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG,
 BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

JP 2006008815	A2	20060112	JP 2004-187255	200406 25
JP 2006008816	A2	20060112	JP 2004-187256	200406 25
JP 2005154730	A2	20050616	JP 2004-217344	200407 26
JP 2006199829	A2	20060803	JP 2005-13263	200501 20
PRIORITY APPLN. INFO.:			JP 2004-187255	A 200406 25
			JP 2004-187256	A 200406 25
			JP 2004-217344	A 200407 26
			JP 2005-13263	A 200501 20
			JP 2005-20384	A 200501 27
			JP 2005-72086	A 200503 14
			JP 2005-128377	A 200504 26
			JP 2003-378029	A 200311 07

AB Title resin compns. comprise (A) 5-100% a styrene resin obtained by (co)polymg. an arom. vinyl compd., or an arom. vinyl compd. and another copolymerizable vinyl monomer with the arom. compd. in or without the presence of a rubber-like polymer, (B) 0-95% an olefin resin, and (C) 0.5-100 parts (based on 100 parts A + B) a block

copolymer contg. an olefin polymer block and a hydrophilic polymer block. Thus, a compn. comprising an acrylonitrile-butadiene-styrene graft copolymer 32, an acrylonitrile-styrene copolymer 48, Novatec BC 6C 20, Pelestat 303 4 parts was kneaded and injection-molded to give a test piece, showing impact strength 7 kJ/m², elec. resistance $2 + 1010 \Omega$, good chem. resistance and surface appearance.

IT 9002-88-4, Polyethylene

RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agent contained; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

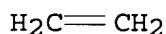
RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IT 9003-07-0, Novatec MA 1

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blend with styrenic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

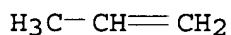
RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6

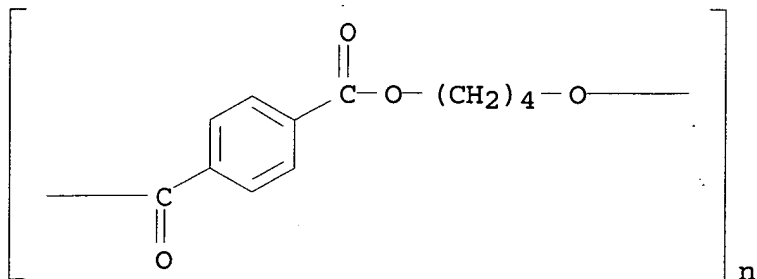


IT 24968-12-5, Duranex XD 477 26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

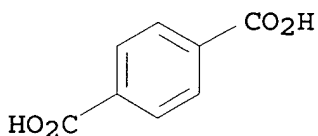
CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L051-00

ICS C08L023-00; C08L023-26; C08L053-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 76

ST thermoplastic resin compn molded article impact chem resistance appearance; antistatic charge controlling property; styrenic polymer Novatec Pelestat compn

IT Polycarbonates, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(arom., blend with thermoplastic resin; thermoplastic resin

compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Polyolefins**

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(blend with styrenic resins; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Polyesters, properties**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Impact-resistant materials**

(chem. resistant; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Styrene-butadiene rubber, properties**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(hydrogenated, block, Dynaron 4600P, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Chemically resistant materials**

(impact-resistant; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Polyolefins**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(maleated, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Polyethers, uses**

RL: MOA (Modifier or additive use); USES (Uses)

(**polyamide-**, **antistatic** agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT **Polyethers, uses**

RL: MOA (Modifier or additive use); USES (Uses)

(**polyester-**, **antistatic** agent; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

- IT **Polyesters, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(polyether-, **antistatic** agent; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Polyamides, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(polyether-, **antistatic** agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Polyolefins**
RL: MOA (Modifier or additive use); USES (Uses)
(polyether-, block, **antistatic** agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Polyethers, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(**polyolefin**-, block, **antistatic** agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Antistatic agents**
Antistatic materials
Laminated plastic films
Plastic films
(thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Molded plastics, properties**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Polymer blends**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(thermoplastic resins; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT **Plastics, uses**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(thermoplastics; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)
- IT 694491-73-1, Butadiene-styrene triblock copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical

or engineered material use); USES (Uses)
 (TR 2500, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 9002-88-4, Polyethylene

RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic agent contained; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 56-81-5D, Glycerin, esters 74-85-1D, Ethylene, polyether block copolymers 111-42-2D, Diethanolamine, derivs. 115-07-1D, Propylene, polyether block copolymers 7550-35-8, Lithium bromide 9078-36-8, Electrostripper EA 31566-31-1, Electrostripper TS 5 603105-88-0, Hi-Boron 400N 663164-12-3, Electrostripper TS 3B 683273-61-2, Sankonol 0862-10T 852533-77-8, TEP 004 854077-51-3, Pelestat 303 872834-37-2, Pelestat 230 872834-38-3, Pelestat M 140 872834-91-8, Hi-Boron MB 400N8LDPE 872834-97-4, Sankonol AQ 50T

RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic agent; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 9003-54-7P, Acrylonitrile-styrene copolymer 27341-67-9P, Acrylonitrile-methacrylic acid-styrene copolymer 28879-41-6P, Acrylonitrile-2-hydroxyethyl methacrylate-styrene copolymer 29762-66-1P, Acrylonitrile-glycidyl methacrylate-styrene copolymer 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blend with styrenic resin and olefin resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 9003-07-0, Novatec MA 1 106565-43-9, Novatec BC 6C

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(blend with styrenic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 106758-55-8DP, Acrylonitrile-butadiene-styrene block graft copolymer, hydrogenated 694491-73-1DP, Butadiene-styrene triblock copolymer, hydrogenated 709030-54-6DP, Butadiene-styrene diblock copolymer, hydrogenated

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blend with thermoplastic resin; thermoplastic resin compns. for

molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT 108-31-6D, Maleic anhydride, reaction products with **polyolefins** 24968-12-5, Duranex XD 477 26062-94-2 73597-68-9, Novarex 7022P 105729-79-1D, Isoprene-styrene block copolymer, hydrogenated, polycarbonate block 153700-46-0, Youmex 1001 156859-04-0, Youmex 1010 851895-60-8, TMS 4L77

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT 106107-54-4P, Butadiene-styrene block copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(multiblock, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

IT 106107-54-4D, hydrogenated, block
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(styrene-butadiene rubber, Dynaron 4600P, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and **antistatic** properties or charge controlling properties)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 2 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1129284 HCAPLUS
DOCUMENT NUMBER: 143:387940
TITLE: Fire-resistant and **antistatic** polyester compositions for lighting parts
INVENTOR(S): Numata, Takayoshi
PATENT ASSIGNEE(S): Wintech Polymer Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

JP 2005290367

A2

20051020

JP 2005-64889

200503
09

CN 1667042

A

20050914

CN 2005-10054756

200503
11

PRIORITY APPLN. INFO.:

JP 2004-71784

A

200403
12

AB The compn. comprises (A) a **polyester**, (B) a halogenated bisphenol-type epoxy resin terminated with epoxy group with no. av. mol. wt. >8000, (C) an antimony-type fireproofing agent, and (D) an **antistatic** agent. Thus, 100 parts poly(butylene terephthalate) was mixed with F 3100 (brominated bisphenol A epoxy resin) 20.2, Fire Guard 7500 (halogenated bisphenol A polycarbonate) 5.4, PATOX-M (antimony trioxide) 5.4 and TPL 456 (**antistatic** agent) 2.7 parts and other additives, and injection molded to give a test piece showing UL 94 fire resistance rate V-0, surface resistance $2.3 \times 10^{12} \Omega$ and tensile strength 60 MPa.

IT 26062-94-2, Poly(butylene terephthalate)

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; fire-resistant and **antistatic polyester** compns. for lighting parts)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

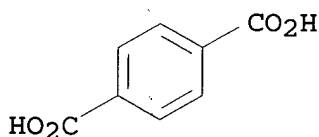
CMF C4 H10 O2

HO-(CH₂)₄-OH

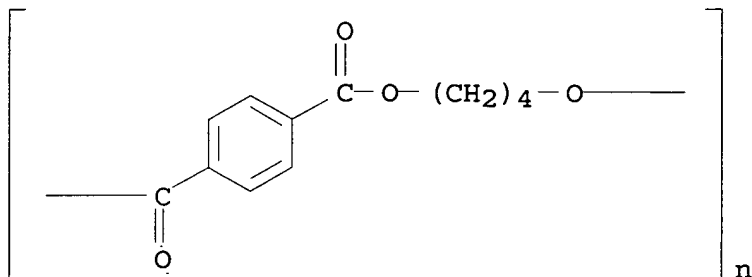
CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate)
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (fire-resistant and antistatic polyester compns. for lighting parts)
 RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



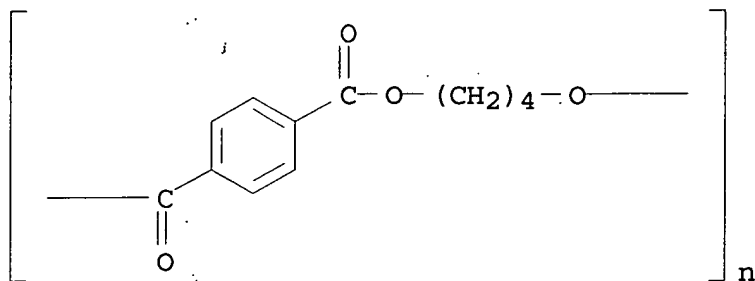
IC ICM C08L067-00
 ICS C08K003-18; C08K005-42; C08L063-02
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 76
 ST **polyester** compn fire resistance lighting part; halogenated bisphenol epoxy resin fireproofing agent; antimony oxide fireproofing agent **polyester antistatic**
 IT **Sulfonic acids, uses**
 RL: MOA (Modifier or additive use); USES (Uses)
 (alkanesulfonic, salts, **antistatic agent**; fire-resistant and **antistatic polyester** compns. for lighting parts)
 IT **Sulfonic acids, uses**
 RL: MOA (Modifier or additive use); USES (Uses)
 (alkylarene, salts, **antistatic agent**; fire-resistant and **antistatic polyester** compns. for lighting parts)
 IT **Sulfonic acids, uses**
 RL: MOA (Modifier or additive use); USES (Uses)
 (arenesulfonic, salts, **antistatic agent**; fire-resistant and **antistatic polyester** compns. for lighting parts)
 IT Epoxy resins, uses
 Polycarbonates, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (brominated, fireproofing agents; fire-resistant and **antistatic polyester** compns. for lighting parts)
 IT **Antistatic agents**
 Fire-resistant materials
 Fireproofing agents

- (fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT **Polyesters**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT Epoxy resins, uses
RL: MOA (Modifier or additive use); USES (Uses)
(halogenated, fireproofing agents; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT Light sources
(holder; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT Aromatic compounds
RL: MOA (Modifier or additive use); USES (Uses)
(sulfonates, **antistatic** agent; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 25155-30-0, TPL 456
RL: MOA (Modifier or additive use); USES (Uses)
(**antistatic** agent; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 27815-51-6
RL: MOA (Modifier or additive use); USES (Uses)
(assumed monomers, fireproofing agent; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 26062-94-2, Poly(butylene terephthalate)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 28774-93-8, Fire Guard 7500
RL: MOA (Modifier or additive use); USES (Uses)
(fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 24968-12-5, Poly(butylene terephthalate)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 1309-64-4, PATOX M, uses 861968-60-7, F 3100 866041-91-0, Pratherm EC 200
RL: MOA (Modifier or additive use); USES (Uses)
(fireproofing agent; fire-resistant and **antistatic polyester** compns. for lighting parts)
- IT 13473-74-0D, Antimonic acid (HSbO3), salts
RL: MOA (Modifier or additive use); USES (Uses)
(fireproofing agents; fire-resistant and **antistatic polyester** compns. for lighting parts)

L75 ANSWER 3 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:545697 HCAPLUS
DOCUMENT NUMBER: 143:60775
TITLE: **Antistatic polyester resin**
compositions and moldings thereof
INVENTOR(S): Ueda, Motonori; Tajiri, Toshiyuki; Nakada,
Michio
PATENT ASSIGNEE(S): Mitsubishi Engineering-Plastic Corporation,
Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005162910	A2	20050623	JP 2003-405093	200312 03
PRIORITY APPLN. INFO.:				200312 03

OTHER SOURCE(S): MARPAT 143:60775
AB Resin compns. contain **polyesters** 100, polyalkylene glycols
0.05-15, and org. **sulfonic acid** Ca salts 0.01-5
parts. Thus, a plate contained Novaduran 5020 100,
Polyethylene Glycol 6000P 2.5, Ca dodecylbenzenesulfonate
1.2 parts.
IT 24968-12-5, Novaduran 5020
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(Novaduran 5020 and 5008; **polyester** resin compns. and
moldings thereof)
RN 24968-12-5 HCAPLUS
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



IT 26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; **polyester** resin compns. and moldings thereof)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

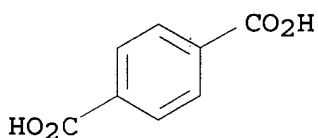
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-00

ICS C08K005-42; C08L071-02

CC 37-6 (Plastics Manufacture and Processing)

ST **antistatic PBT polyester polyalkylene glycol sulfonate**

IT Glass fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(T 187; **polyester** resin compns. and moldings thereof)

IT Molding of plastics and rubbers

(injection; **polyester** resin compns. and moldings thereof)

IT **Antistatic** agents
 Fillers
 Fireproofing agents
 (**polyester** resin compns. and moldings thereof)

IT Polyoxyalkylenes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (**polyester** resin compns. and moldings thereof)

IT **Polyesters**, properties
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (**polyester** resin compns. and moldings thereof)

IT 26264-06-2, BC 2070M
 RL: MOA (Modifier or additive use); USES (Uses)
 (BC 2070M; **polyester** resin compns. and moldings thereof)

IT **24968-12-5**, Novaduran 5020
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (Novaduran 5020 and 5008; **polyester** resin compns. and moldings thereof)

IT **26062-94-2**
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (assumed monomers; **polyester** resin compns. and moldings thereof)

IT 25322-68-3, PEG 6000P 152987-73-0, SR-T 5000
 RL: MOA (Modifier or additive use); USES (Uses)
 (**polyester** resin compns. and moldings thereof)

L75 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:471204 HCAPLUS

DOCUMENT NUMBER: 143:8587

TITLE: Thermoplastic resin compositions and molded products thereof with excellent chemical and impact resistance and **antistatic** properties

INVENTOR(S): Umawatari, Masaaki

PATENT ASSIGNEE(S): Techno Polymer Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2005139312	A2	20050602	JP 2003-377778	200311

PRIORITY APPLN. INFO.:

JP 2003-377778

07

200311

07

AB The compns. comprise (A) 5-95% styrene polymers prepd. by (co)polymn. of arom. vinyl compds. and optionally other comonomers in the presence or absence of rubbers, (B) 5-95% (A + B = 100%) arom. **polyesters**, and (C) 0.5-50 phr poly(ether-ester)-based **antistatic** agents. Thus, ABS graft copolymer 15, acrylonitrile-styrene copolymer 15, PET (Novapex GS 400) 70, and org. **sulfonic acid**-phenolic antioxidant-poly(ether-ester) **antistatic** agent (TEP 004) 10 parts were blended, kneaded, pelletized, and injection molded to give a test piece showing Charpy impact strength with notch 9 kJ/m², good gasoline resistance, and surface resistivity 5 + 10¹¹ Ω.

IT 26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; styrene resin-arom. **polyester** -poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

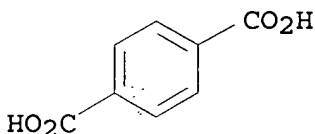
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



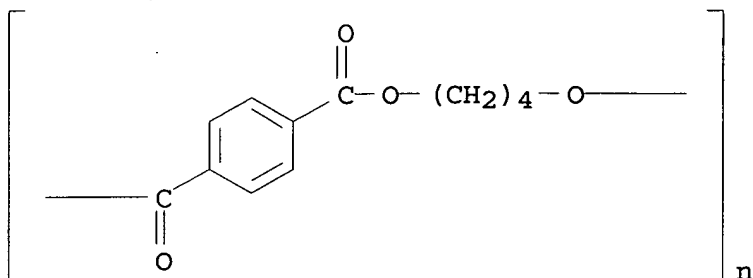
IT 24968-12-5, Duranex XD 477 25038-59-9, Novapex GS 400, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(styrene resin-arom. **polyester**-poly(ether-ester)
compns. with good chem. and impact resistance and
antistatic property)

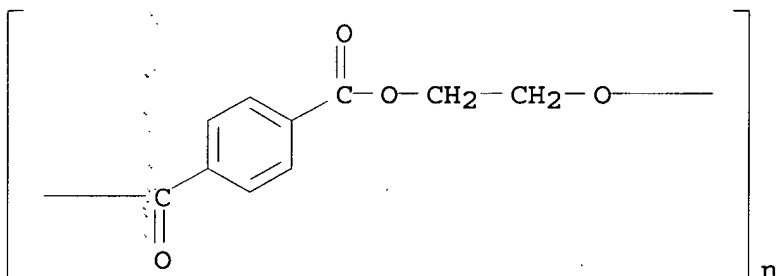
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



IC ICM C08L051-04

ICS C08K005-13; C08K005-42; C08L025-08; C08L067-00

CC 37-6 (Plastics Manufacture and Processing)

ST **antistatic** ABS SAN PET polyether **polyester**

blend; impact resistance ABS resin SAN **polyester** blend;

gasoline resistance ABS resin SAN **polyester** blend

IT **Sulfonic acids**, uses

RL: MOA (Modifier or additive use); USES (Uses)

(**antistatic** agents contg.; styrene resin-arom.

polyester-poly(ether-ester) compns. with good chem. and
impact resistance and **antistatic** property)

IT **Polyesters**, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)

(arom.; styrene resin-arom. **polyester**-poly(ether-ester)
compns. with good chem. and impact resistance and
antistatic property)

- IT Antioxidants
(phenolic, **antistatic** agents contg.; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**polyester**-; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polyesters, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyether-; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(reinforcement, CS 03MA419; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT **Antistatic** agents
Antistatic materials
Chemically resistant materials
Impact-resistant materials
(styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT **Polyesters**, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT **26062-94-2**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT 9003-54-7P, Acrylonitrile-styrene copolymer 27341-67-9P, Acrylonitrile-methacrylic acid-styrene copolymer 28879-41-6P, Acrylonitrile-2-hydroxyethyl methacrylate-styrene copolymer 29762-66-1P, Acrylonitrile-glycidyl methacrylate-styrene copolymer 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(styrene resin-arom. **polyester**-poly(ether-ester)
compns. with good chem. and impact resistance and
antistatic property)

IT 852533-77-8, TEP 004

RL: MOA (Modifier or additive use); USES (Uses)

(styrene resin-arom. **polyester**-poly(ether-ester)
compns. with good chem. and impact resistance and
antistatic property)

IT 24968-12-5, Duranex XD 477 25038-59-9, Novapex GS

400, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)

(styrene resin-arom. **polyester**-poly(ether-ester)
compns. with good chem. and impact resistance and
antistatic property)

L75 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:315809 HCAPLUS

DOCUMENT NUMBER: 142:356401

TITLE: Biaxially stretched **polyester** films
for folding

INVENTOR(S): Ueno, Hiroyuki; Oda, Hisanobu; Yamamoto,
Katsushi

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2005096386	A2	20050414	JP 2003-361485	200310 22
PRIORITY APPLN. INFO.:			JP 2003-298884	A 200308 22

AB The films, useful as cellophane substitutes, have upper and lower yield points on the stress-stain curve with their ratio (lower yield strength/upper yield strength) ≤ 0.90 , and friction coeff. 0.25-0.90. Thus, a compn. of PET 50, a terephthalic acid-ethylene glycol-neopentyl glycol copolymer 40, and PBT 10% was melt extruded, quenched, stretched biaxially, heat-set at 215° with relaxing, and coated with a Na alkylsulfonate to give an **antistatic** film showing the yield strength ratio 0.84, friction coeff. 0.27, upper yield strength 69 MPa, surface resistivity $1 + 109 \Omega/\text{box.}$, max. heat shrinkage 2.8%,

and good twist packaging properties.

IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(assumed monomers; biaxially stretched polyester films
with good twisting property)
RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

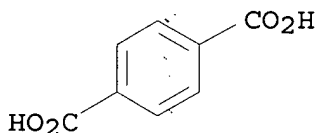
CM 1

CRN 110-63-4
CMF C4 H10 O2

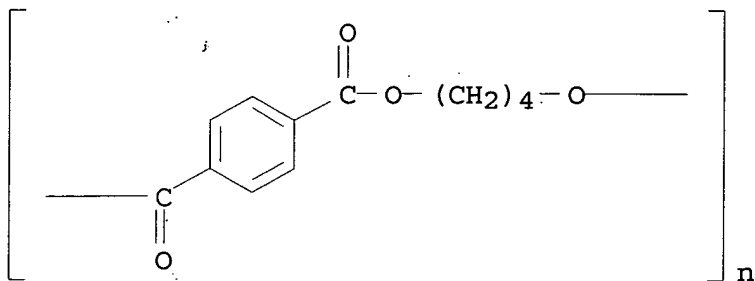
HO-(CH₂)₄-OH

CM 2

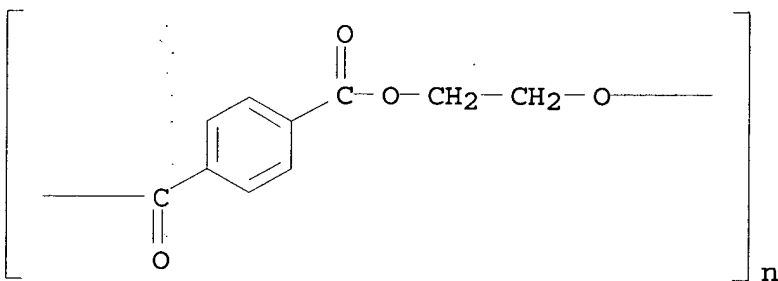
CRN 100-21-0
CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate) sru
25038-59-9, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(biaxially stretched polyester films with good twisting
property)
RN 24968-12-5 HCAPLUS
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IC ICM B29C055-12
 ICS B32B009-00; B29K067-00
 CC 38-3 (Plastics Fabrication and Uses)
 ST twist packaging polyester film antistatic; PET
 PBT neopentyl glycol copolyester blend twist packaging film
 IT Sulfonic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (alkanesulfonic, sodium salts, antistatic agent;
 biaxially stretched polyester films with good twisting
 property)
 IT Polyesters, uses
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
 or engineered material use); USES (Uses)
 (biaxially stretched polyester films with good twisting
 property)
 IT Polymer blends
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (biaxially stretched polyester films with good twisting
 property)
 IT Packaging materials
 (films, antistatic; biaxially stretched
 polyester films with good twisting property)
 IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; biaxially stretched **polyester** films with good twisting property)

IT 24968-12-5, Poly(butylene terephthalate) sru

25038-59-9, uses 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(biaxially stretched **polyester** films with good twisting property)

IT 7429-90-5, Aluminum, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(deposition layer; biaxially stretched **polyester** films with good twisting property)

L75 ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:212420 HCAPLUS

DOCUMENT NUMBER: 142:281154

TITLE: Thermoplastic **polyester** compositions with long-lasting **antistatic** properties and good fire, blocking, and impact resistance, and their sliding parts

INVENTOR(S): Ishii, Hiromitsu; Nagao, Takashi; Utazaki, Kenichi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2005060428	A2	20050310	JP 2003-207399	20030812
				20030812

PRIORITY APPLN. INFO.: JP 2003-207399

AB The compns., useful for electrophotog. devices, comprise thermoplastic **polyesters** 100, **antistatic** polymers 0.5-40, and fatty acid esters 0.1-15 parts. Thus, test pieces comprising PBT (PBT 1100S) 100, adipic acid-caprolactam-**polyethylene** glycol block copolymer 5, and ethylene glycol distearate (Emanon 3201M) 2 parts showed dynamic friction coeff. by a 20-h thrust friction test 0.23, notched Izod impact strength (ASTM D 256) 60 J/m, and vol. resistivity after heating at 60° for 200 h 4 + 1013 $\Omega \cdot \text{cm}$.

IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (assumed monomers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

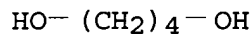
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

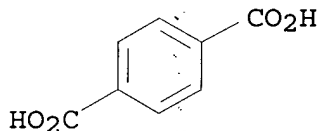
CMF C4 H10 O2



CM 2

CRN 100-21-0

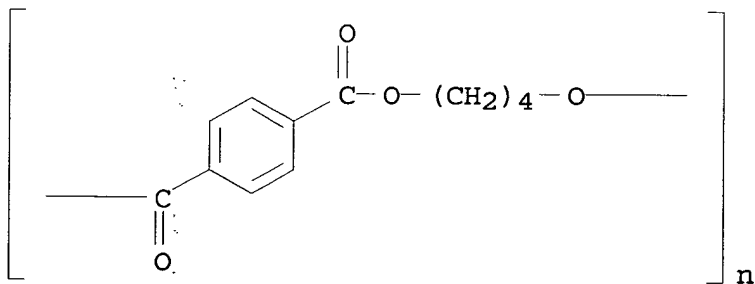
CMF C8 H6 O4



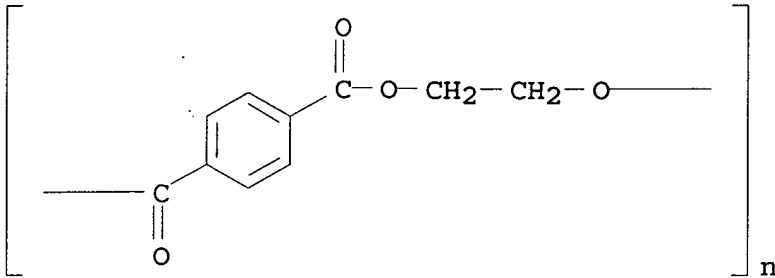
IT 24968-12-5, PBT 1100S 25038-59-9, J 055, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylene-carbonyl) (9CI) (CA INDEX NAME)



IC ICM C08L067-00
 ICS C08K003-00; C08K005-00; C08K005-10; F16C033-20; C08L101-00
 CC 38-3 (Plastics Fabrication and Uses)
 ST fire resistance sliding PBT **polyethylene** glycol; impact resistance **polyester** ethylene glycol distearate; antiblocking PBT adipate caprolactam ethoxylated block; long lasting **antistatic polyamide polyester** polyoxyalkylene
 IT Glass fibers, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (120H, fillers; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)
 IT **Sulfonic acids**, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (alkanesulfonic, salts, with sodium, **antistatic** agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)
 IT Epoxy resins, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (brominated, fireproofing agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)
 IT Polycarbonates, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (bromine-contg., fireproofing agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)
 IT **Antistatic materials**
 Fireproofing agents
 (fire-, blocking-, and impact-resistant **polyester**

- sliding parts with long-lasting antistatic properties)
- IT **Polyesters, uses**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Polymer blends**
RL: TEM (Technical or engineered material use); USES (Uses)
(fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Impact-resistant materials**
(fire-resistant; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Halogen compounds**
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(fireproofing agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Fire-resistant materials**
(impact-resistant; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polyamide-polyester-**, block, antistatic polymers; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Polyesters, uses**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polyamide-polyoxyalkylene-**, block, antistatic polymers; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polyester-**, block, antistatic polymers; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting antistatic properties)
- IT **Polyamides, uses**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polyester-polyoxyalkylene-**, block, antistatic

- polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-, block, antistatic polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT Machinery parts
(sliding; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 7631-86-9, Silica, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(antistatic agent contg.; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 152231-81-7, Electrostripper PC 3
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(antistatic agent; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 115180-63-7P, Adipic acid-caprolactam-polyethylene glycol block copolymer 115786-07-7P, 1,4-Butanediol-polyethylene glycol-terephthalic acid block copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(antistatic polymer; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 627-83-8, Emanon 3201M 3234-85-3, Exceparl MY-M
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 24968-12-5, PBT 1100S 25038-59-9, J 055, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 27815-51-6, Carbonic acid-3,3',5,5'-tetrabromobisphenol A polymer

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agent, assumed monomers; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)

IT 5945-33-5, FP 600 28774-93-8, FG 7000 139189-30-3, PX 200 152987-73-0, SR-T 5000

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agent; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)

IT 37640-57-6, MC 610

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing aid; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)

L75 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:119922 HCAPLUS

DOCUMENT NUMBER: 142:187882

TITLE: Electrostatic composition based on **polyamide** matrix

INVENTOR(S): Peduto, Nicolangelo; Bradley, Gerard

PATENT ASSIGNEE(S): Rhodia Engineering Plastics S. A., Fr.

SOURCE: Fr. Demande, 23 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2858624	A1	20050211	FR 2003-9782	20030808
FR 2858624	B1	20050909		
CA 2535023	AA	20050224	CA 2004-2535023	20040803
WO 2005017038	A2	20050224	WO 2004-FR2077	20040803
WO 2005017038	A3	20050609		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,				

SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

EP 1651714 A2 20060503 EP 2004-786252

200408
03

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.:

FR 2003-9782

A

200308
08

WO 2004-FR2077

W

200408
03

AB The present invention relates to a compn. contg. matrix
polyamide comprising elec. conducting loads and **anti**
-static agents. Working of this compn. makes it possible
to obtain plastic articles such as for example parts of body in the
technol. of the car, having a good capacity to be painted by a
process of electrostatic deposition of painting.

IT 9002-88-4

RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)

(ULDPE; electrostatic compn. based on **polyamide** matrix)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H₂C=CH₂

IT 9011-52-3 27136-65-8 50327-77-0

RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)

(assumed monomers; electrostatic compn. based on
polyamide matrix)

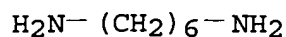
RN 9011-52-3 HCAPLUS

CN Decanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX
NAME)

CM 1

CRN 124-09-4

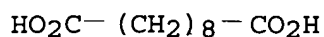
CMF C6 H16 N2



CM 2

CRN 111-20-6

CMF C10 H18 O4



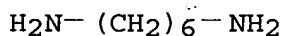
RN 27136-65-8 HCAPLUS

CN Nonanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4

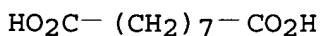
CMF C6 H16 N2



CM 2

CRN 123-99-9

CMF C9 H16 O4



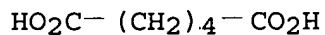
RN 50327-77-0 HCAPLUS

CN Hexanedioic acid, polymer with 1,4-butanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-04-9

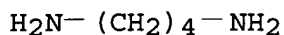
CMF C6 H10 O4



CM 2

CRN 110-60-1

CMF C4 H12 N2



IT 9003-07-0, Polypropylene 9008-66-6,
 Nylon 6.10 24937-16-4, Nylon 12 24938-56-5,
 Nylon 4 25035-04-5, Nylon 11 25038-54-4, ASN 27
 S, properties 28757-63-3, Nylon 6.9 32131-17-2,
 Technyl 27 A00, properties 50327-22-5, Nylon 4.6
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PRP (Properties); TEM (Technical or engineered material
 use); PROC (Process); USES (Uses)
 (electrostatic compn. based on polyamide matrix)

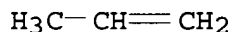
RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

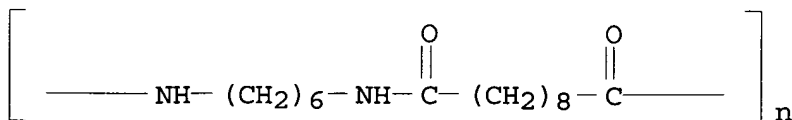
CRN 115-07-1

CMF C3 H6



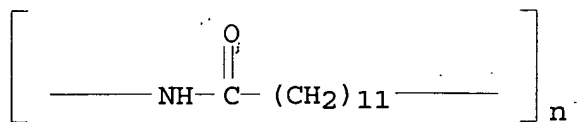
RN 9008-66-6 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,10-dioxo-1,10-decanediyl)] (9CI)
 (CA INDEX NAME)



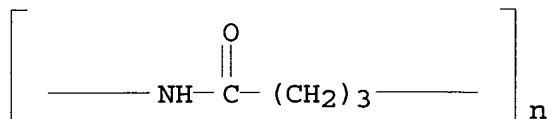
RN 24937-16-4 HCAPLUS

CN Poly[imino(1-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



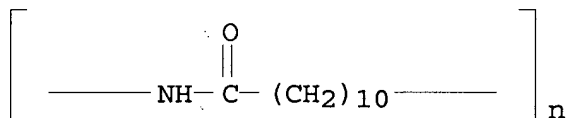
RN 24938-56-5 HCAPLUS

CN Poly[imino(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)



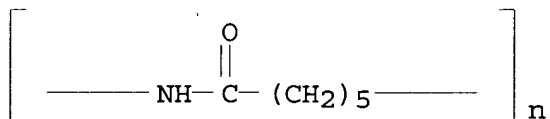
RN 25035-04-5 HCAPLUS

CN Poly[imino(1-oxo-1,11-undecanediyl)] (9CI) (CA INDEX NAME)



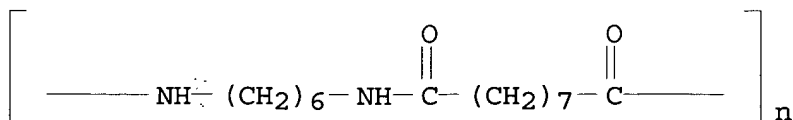
RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



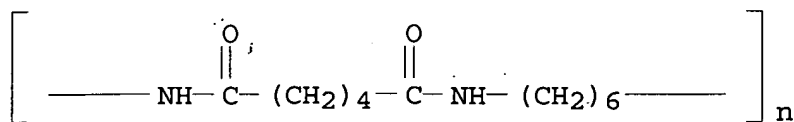
RN 28757-63-3 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,9-dioxo-1,9-nonanediyl)] (9CI) (CA INDEX NAME)



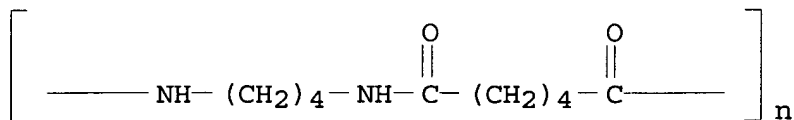
RN 32131-17-2 HCAPLUS

CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



RN 50327-22-5 HCAPLUS

CN Poly[imino-1,4-butanediylimino(1,6-dioxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IT 9010-79-1D, maleated

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ethylene-propylene rubber; electrostatic compn. based on polyamide matrix)

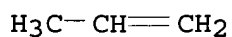
RN 9010-79-1 HCAPLUS

CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

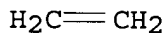
CMF C3 H6



CM 2

CRN 74-85-1

CMF C2 H4



IC ICM C08L077-00

ICS C08K003-04; C09D005-46; C09D177-00

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38, 42

ST electrostatic compn polyamide matrix automobile
electrostatic deposition painting

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

- IT **Polyolefin rubber**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(LLDPE; electrostatic compn. based on **polyamide matrix**)
- IT **Synthetic rubber, properties**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(acrylic-acrylonitrile-styrene; electrostatic compn. based on **polyamide matrix**)
- IT **Sulfonic acids, properties**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(alkanesulfonic, sodium salts; electrostatic compn. based on **polyamide matrix**)
- IT **Paints**
(electrodeposited, electrostatic deposition; electrostatic compn. based on **polyamide matrix**)
- IT **Antistatic agents**
Conducting polymers
(electrostatic compn. based on **polyamide matrix**)
- IT **ABS rubber**
Acrylic rubber
Carbon black, properties
Glass, properties
Glycerides, properties
Ionomers
Metals, properties
Mica-group minerals, properties
Plastics, properties
Polyamides, properties
Polyoxyalkylenes, properties
Styrene-butadiene rubber, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(electrostatic compn. based on **polyamide matrix**)
- IT **Automobiles**
(electrostatic deposition painting; electrostatic compn. based on **polyamide matrix**)
- IT **Alcohols, properties**
Amines, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(ethoxylated; electrostatic compn. based on **polyamide matrix**)
- IT **Styrene-butadiene rubber, properties**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material

use); PROC (Process); USES (Uses)
(hydrogenated, block, triblock; electrostatic compn. based on
polyamide matrix)

IT Fillers
(inorg., metal coated; electrostatic compn. based on
polyamide matrix)

IT EPDM rubber
Ethylene-propylene rubber
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
(maleated; electrostatic compn. based on **polyamide**
matrix)

IT Coating process
(painting, electrostatic deposition; electrostatic compn. based
on **polyamide** matrix)

IT Electrodeposits
(paints, electrostatic deposition; electrostatic compn. based on
polyamide matrix)

IT Rubber, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
(polyacrylic; electrostatic compn. based on **polyamide**
matrix)

IT Polyethers, properties
Polyoxyalkylenes, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
(**polyamide-**; electrostatic compn. based on
polyamide matrix)

IT Polyamides, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
(polyether-; electrostatic compn. based on **polyamide**
matrix)

IT Polyamides, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
(polyoxyalkylene-; electrostatic compn. based on
polyamide matrix)

IT Amines, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
(primary; electrostatic compn. based on **polyamide**
matrix)

IT Amines, properties
RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(secondary; electrostatic compn. based on **polyamide** matrix)

IT Amines, properties

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(tertiary; electrostatic compn. based on **polyamide** matrix)

IT 9003-56-9

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ABS rubber; electrostatic compn. based on **polyamide** matrix)

IT 9002-88-4

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ULDPE; electrostatic compn. based on **polyamide** matrix)

IT 9011-52-3 24938-03-2 24938-10-1 25718-70-1

25722-07-0 27136-65-8 31726-54-2 50327-77-0

343776-38-5

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(assumed monomers; electrostatic compn. based on **polyamide** matrix)

IT 98-11-3D, Benzenesulfonic acid, alkyl derivs.

555-43-1, Glycerol tristearate 1323-83-7, Glycerol distearate

7782-42-5, Graphite, properties 9003-07-0,

Polypropylene 9008-66-6, Nylon 6.10 9010-77-9,

Acrylic acid-ethylene copolymer 9011-13-6, Styrene-maleic

anhydride copolymer 13983-17-0, Wollastonite 24937-16-4,

Nylon 12 24937-78-8, Ethylene-vinyl acetate copolymer

24938-56-5, Nylon 4 24938-70-3, Nylon 6T 24938-73-6,

Nylon 9T 25035-04-5, Nylon 11 25038-54-4, ASN 27

S, properties 25191-04-2, Nylon 6.12 25322-68-3D,

Polyethyleneglycol, alc. and amine derivs. 25668-34-2, Nylon 6I

25805-74-7, Nylon mxd 6 28757-63-3, Nylon 6.9

31566-31-1, Glycerol monostearate 32131-17-2, Technyl 27

A00, properties 32168-30-2, Nylon 6.18 50327-22-5, Nylon

4.6 106107-54-4D, SBS, sps 106677-58-1 211060-88-7, Nylon 6.36

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electrostatic compn. based on **polyamide** matrix)

IT 9010-79-1D, maleated

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ethylene-propylene rubber; electrostatic compn. based on
polyamide matrix)

IT 9003-55-8, 694491-73-1 694491-73-1D, hydrogenated
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PRP (Properties); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)

(styrene-butadiene rubber; electrostatic compn. based on
polyamide matrix)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L75 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:96084 HCAPLUS

DOCUMENT NUMBER: 142:157409

TITLE: Biaxially stretched polyester film
with high antistatic property for
twist wrapping

INVENTOR(S): Yamamoto, Katsushi; Ueno, Hiroyuki; Oda,
Hisanobu

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005029593	A2	20050203	JP 2003-192953	200307 07
PRIORITY APPLN. INFO.: JP 2003-192953				200307 07

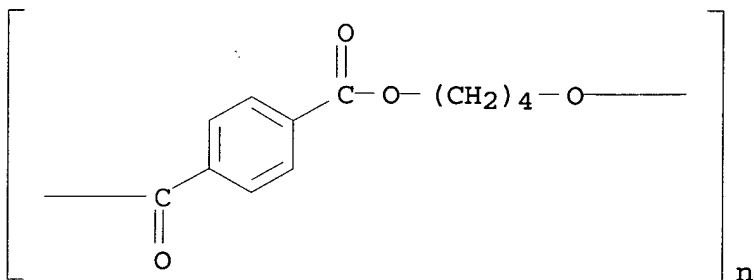
AB The film contains poly(ethylene terephthalate) 10-94, (co)
polyesters having glass transition temp. $\geq 35^\circ$
5-50, and (co)polyesters having glass transition temp.
 $\leq 34^\circ$ 1-40% and friction coeff. 0.25-0.90, surface
intrinsic resistivity $1 + 107-1 + 1014$ ($\Omega/\text{box.}$).
Thus, a mixt. contg. ethylene glycol-neopentyl glycol-terephthalic
acid copolymer 35, Butanediol-terephthalic acid copolymer 10,
poly(ethylene terephthalate) 55, and SiO_2 0.02% was biaxially
stretched to give a film, which was coated with Na alkylsulfonate to
give a coated film showing good twisting property.

IT 24968-12-5P 26062-94-2P, Butanediol-terephthalic
acid copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(film contg.; antistatic biaxially stretched polyester film three kinds of polyesters for twist wrapping)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

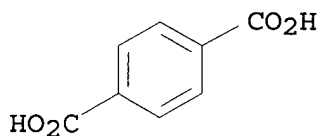
CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



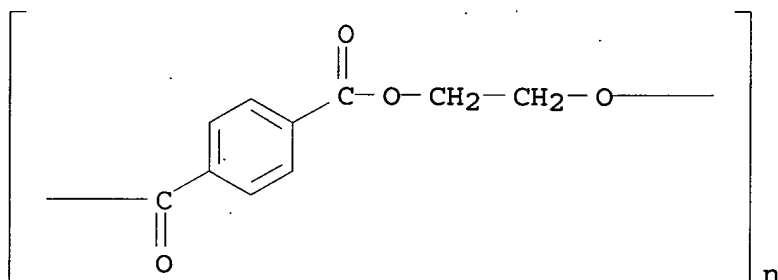
IT 25038-59-9, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(film contg.; antistatic biaxially stretched polyester film three kinds of polyesters for twist wrapping)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA

INDEX NAME)



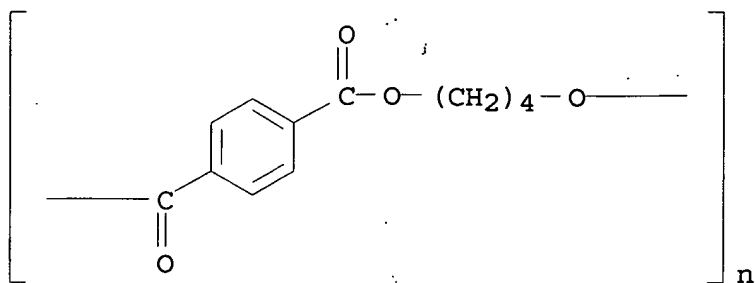
- IC ICM C08J005-18
ICS C08L067-00
- CC 38-3 (Plastics Fabrication and Uses)
- ST twist wrapping biaxially stretched **polyester** film
antistatic; butanediol terephthalic acid **polyester**
film twist wrapping; ethylene glycol neopentyl glycol terephthalic
acid **polyester** film; **polyethylene**
terephthalate blend film twist wrapping
- IT **Sulfonic acids**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(alkanesulfonic, sodium salts, **antistatic** agent, film
coated with; **antistatic** biaxially stretched
polyester film three kinds of **polyesters** for
twist wrapping)
- IT **Polyesters**, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(**antistatic** biaxially stretched **polyester**
film three kinds of **polyesters** for twist wrapping)
- IT Packaging materials
(films, **antistatic**; **antistatic** biaxially
stretched **polyester** film three kinds of
polyesters for twist wrapping)
- IT 24968-12-5P 26062-94-2P, Butanediol-terephthalic
acid copolymer 26780-49-4P, Ethylene glycol-neopentyl
glycol-terephthalic acid copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(film contg.; **antistatic** biaxially stretched
polyester film three kinds of **polyesters** for
twist wrapping)
- IT 25038-59-9, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(film contg.; **antistatic** biaxially stretched
polyester film three kinds of **polyesters** for
twist wrapping)

L75 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

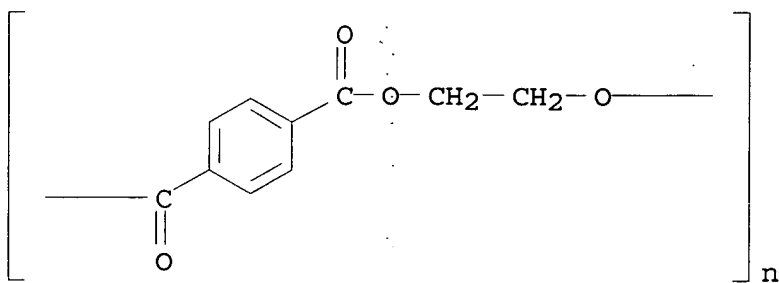
ACCESSION NUMBER: 2005:94029 HCAPLUS
 DOCUMENT NUMBER: 142:157393
 TITLE: Biaxially stretched **polyester** films
 for twist wrapping
 INVENTOR(S): Yamamoto, Katsushi; Ueno, Hiroyuki; Oda,
 Hisanobu
 PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005029592	A2	20050203	JP 2003-192952	200307 07
PRIORITY APPLN. INFO.: JP 2003-192952				200307 07

AB The films, useful for cellophane substitutes, consist of PET 10-94,
polyesters and/or copolyesters having $T_g \geq 35^\circ$
 5-50, and **polyesters** and/or copolyesters with T_g
 $\leq 34^\circ$ 1-40% and have friction coeff. 0.25-0.90. Thus,
 terephthalic acid-ethylene glycol-neopentyl glycol copolymer (T_g
 75°) 35, terephthalic acid-butanediol copolymer (T_g
 30°) 10, and PET 55% were blended, mixed with 0.02% SiO₂,
 melt kneaded, extruded through a T-die, cast, stretched biaxially,
 and heat-set to give a film, which was coated with Na alkyl
 sulfonate. The film showed good twist retention, max. heat
 shrinkage 2.5%, and residual stress 4.4%.
 IT 24968-12-5, Butanediol-terephthalic acid copolymer, sru
 25038-59-9, uses 26062-94-2, Butanediol-
 terephthalic acid copolymer
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
 or engineered material use); USES (Uses)
 (biaxially stretched **polyester** blend films for twist
 wrapping)
 RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

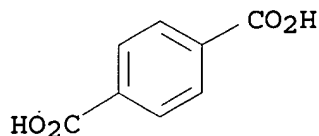
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4

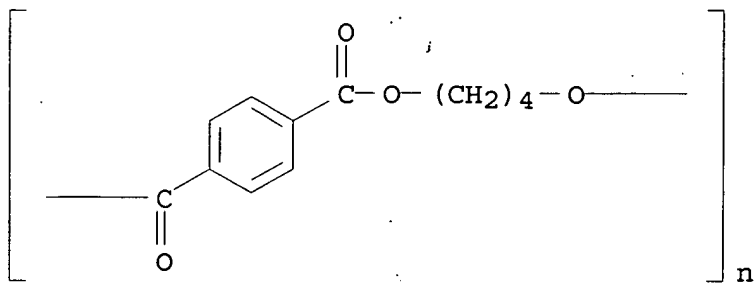


IC ICM C08L067-02
ICS B29C055-12; B65D065-02; B65D065-42; B29K067-00
CC 38-3 (Plastics Fabrication and Uses)
ST twist wrapping film **polyester** blend; PET PBT neopentyl glycol copolyester blend film cellophane substitute
IT **Sulfonic acids, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(alkanesulfonic, sodium salts, **antistatic** coatings; biaxially stretched **polyester** blend films for twist wrapping)
IT **Polyesters, uses**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(biaxially stretched **polyester** blend films for twist wrapping)
IT Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(biaxially stretched **polyester** blend films for twist wrapping)
IT Packaging materials
(films; biaxially stretched **polyester** blend films for twist wrapping)
IT 24968-12-5, Butanediol-terephthalic acid copolymer, sru 25038-59-9, uses 26062-94-2, Butanediol-terephthalic acid copolymer 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(biaxially stretched **polyester** blend films for twist wrapping)

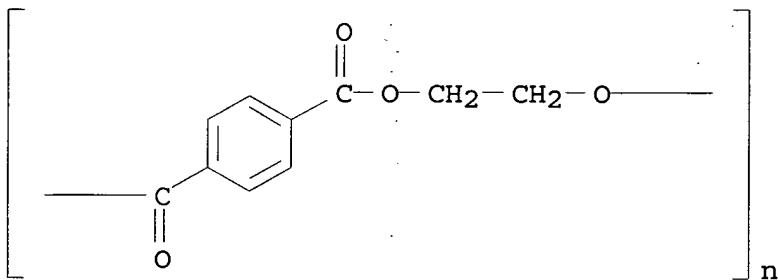
L75 ANSWER 10 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1035033 HCAPLUS
DOCUMENT NUMBER: 142:24144
TITLE: Method of **antistatic** conditioning thermoplastic polymer packaging materials
INVENTOR(S): Anderheggen, Bernd; Schneider, Michael; Selbertinger, Josef
PATENT ASSIGNEE(S): Ecolab Inc., USA
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1481787	A1	20041201	EP 2003-11980	20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
WO 2004106036	A1	20041209	WO 2004-EP50908	20040525
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			EP 2003-11980	A
				20030528
AB	A method of conditioning thermoplastic polymer packages which are molded from thermoplastic preforms, comprises the steps of: (a) providing a soln. with 0.1 to 15.0 wt-% of an antistatic compn.; (b) contacting the thermoplastic preform with the antistatic compn. on the outer surface; (c) blow molding the molded package from the preform by a molding process directly after steps (a) and (b) or alternatively in a later sep. process step. This antistatic compn. is used as a soln. for the conditioning treatment of polyester molds and/or polyester preforms.			
IT	24968-12-5, Poly(butylene terephthalate) 25038-59-9, uses			
	RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)			
	(antistatic conditioning of thermoplastic polymer packaging materials)			
RN	24968-12-5 HCAPLUS			
CN	Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)			



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT 26062-94-2, Poly(butylene terephthalate)
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (assumed monomers; **antistatic** conditioning of thermoplastic polymer packaging materials)
 RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

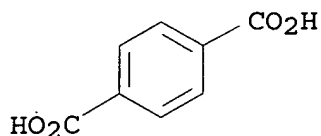
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



- IC ICM B29C049-42
ICS B29B011-14; C08J007-06; B29K067-00
- CC 38-2 (Plastics Fabrication and Uses)
- ST **antistatic** blow molded **polyester** packaging
- IT **Sulfonic acids, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(C12-16-alkanesulfonic, sodium salts, conditioning agent;
antistatic conditioning of thermoplastic polymer
packaging materials)
- IT **Sulfonic acids, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(alkanesulfonic, **antistatic** agent; **antistatic**
conditioning of thermoplastic polymer packaging materials)
- IT **Antistatic agents**
Bottles
Packaging materials
(**antistatic** conditioning of thermoplastic polymer
packaging materials)
- IT Polycarbonates, uses
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(**antistatic** conditioning of thermoplastic polymer
packaging materials)
- IT **Materials**
(molded products, blow; **antistatic** conditioning of
thermoplastic polymer packaging materials)
- IT **Plastics, uses**
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(thermoplastics; **antistatic** conditioning of
thermoplastic polymer packaging materials)
- IT 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate
1338-43-8, Sorbitan monooleate 9005-66-7, Polyoxyethylene sorbitan
monopalmitate 9005-67-8, Polyoxyethylene sorbitan monostearate
9005-70-3, Polyoxyethylene sorbitan trioleate 9005-71-4,
Polyoxyethylene sorbitan tristearate 26266-57-9, Sorbitan
palmitate 26658-19-5, Sorbitan tristearate
RL: TEM (Technical or engineered material use); USES (Uses)
(**antistatic** agent; **antistatic** conditioning of
thermoplastic polymer packaging materials)
- IT 9002-86-2, Polyvinylchloride 9003-53-6, Polystyrene 24968-11-4,
Poly(ethylene naphthalate) 24968-12-5, Poly(butylene
terephthalate) 25038-59-9, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses)

(antistatic conditioning of thermoplastic polymer packaging materials)

IT 25230-87-9 26062-94-2, Poly(butylene terephthalate)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; antistatic conditioning of thermoplastic polymer packaging materials)

IT 9005-64-5, Tween 20 9005-65-6, Tween 80
RL: TEM (Technical or engineered material use); USES (Uses)
(conditioning agent; antistatic conditioning of thermoplastic polymer packaging materials)

IT 64-18-6, Formic acid, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(preservative; antistatic conditioning of thermoplastic polymer packaging materials)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:898773 HCAPLUS
DOCUMENT NUMBER: 141:367113
TITLE: Stretched polyester packaging films with good twist-wrapping properties and dead-hold properties
INVENTOR(S): Imai, Kazumoto; Oda, Hisanobu
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004299231	A2	20041028	JP 2003-94557	20030331
PRIORITY APPLN. INFO.:				20030331
				20030331

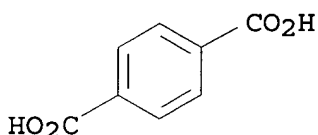
AB The invention relates to a film with surface resistivity $\leq 1 + 10^{13} \Omega/\text{box}$. consisting of (A) a polyester layer and (B) a laminate layer of compns. comprising cryst. polyesters and noncryst. polyesters at least on one side of A, suitable for automatic wrapping machines. Thus, a trilayer film comprising a core layer of poly(ethylene isophthalate) and surface layers of a blend of PET/terephthalic acid-ethylene

glycol-neopentyl glycol copolymer was stretched in the machine direction, coated with an anionic antistatic agent contg. dodecylsulfonate, stretched in the transverse direction, and heat-set to give a film showing surface resistivity $1 + 10^{11}$ Ω /box. and twist retention degree $\geq 240^\circ$ after twisted at 1.5 turns, comparable to that for cellophane of 250° .

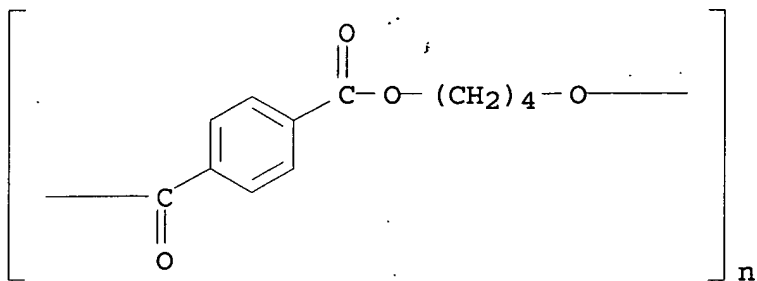
IT 26062-94-2, Poly(butylene terephthalate)
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (surface layer contg., assumed monomers; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
 RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)
 CM 1
 CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

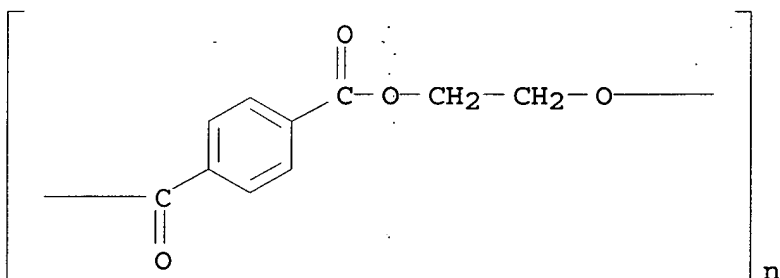
CM 2
 CRN 100-21-0
 CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate) 25038-59-9
 , PET, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (surface layer contg.; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
 RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IC ICM B32B027-36
 ICS B29C055-02; B29K067-00; B29L009-00
 CC 38-3 (Plastics Fabrication and Uses)
 ST **polyethylene** isophthalate PET neopentyl glycol laminate;
 dodecylsulfonate **antistatic** multilayer **polyester**
 packaging film; twist wrapping film **polyester** laminate
 IT **Antistatic agents**
 (alkyl anions; **polyester** laminated packaging films with
 good twist-wrapping, dead-hold, and **antistatic**
 properties)
 IT Packaging materials
 (laminated films; **polyester** laminated packaging films
 with good twist-wrapping, dead-hold, and **antistatic**
 properties)
 IT Laminated plastic films
 (**polyester** laminated packaging films with good
 twist-wrapping, dead-hold, and **antistatic** properties)
 IT **Polyesters, uses**
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (**polyester** laminated packaging films with good
 twist-wrapping, dead-hold, and **antistatic** properties)
 IT Polymer blends
 RL: TEM (Technical or engineered material use); USES (Uses)

- (polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 1510-16-3D, Dodecylsulfonic acid, salts
RL: TEM (Technical or engineered material use); USES (Uses)
(antistatic coating contg.; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 26810-06-0, Ethylene glycol-isophthalic acid copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 26948-62-9, Poly(ethylene isophthalate)
RL: TEM (Technical or engineered material use); USES (Uses)
(polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 26062-94-2, Poly(butylene terephthalate)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(surface layer contg., assumed monomers; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 24968-12-5, Poly(butylene terephthalate) 25038-59-9, PET, uses 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(surface layer contg.; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)

L75 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:633983 HCAPLUS
DOCUMENT NUMBER: 141:157958
TITLE: Antistatic polymer composition containing permanent and migratory antistatic additives
INVENTOR(S): Chin, Hui; Fagouri, Christopher John
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.; Ciba Sc Holding AG
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

APL (X)

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 2004065471	A2	20040805	WO 2003-EP51077	200312

19

WO 2004065471 A3 20040923
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN,
YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

CA 2512664 AA 20040805 CA 2003-2512664

200312
19

AU 2003303752 A1 20040813 AU 2003-303752

200312
19

EP 1585787 A2 20051019 EP 2003-809195

200312
19

EP 1585787 B1 20060614

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK

CN 1742047 A 20060301 CN 2003-80109176

200312
19

JP 2006513299 T2 20060420 JP 2004-566833

200312
19

AT 329959 E 20060715 AT 2003-809195

200312
19

US 2004171762 A1 20040902 US 2004-761821

200401
21

PRIORITY APPLN. INFO.:

US 2003-442636P

P

200301
24

WO 2003-EP51077

W

200312
19

AB Polymer compns. comprises (A) a polymer substrate selected from the group consisting of the **polyolefins**, **polyesters**, **polyamides** and **polylactic acids** and (B) a combination of (I) at least one permanent **antistatic** additive selected from the group consisting of the **polyetheresteramides** and (II)

at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides, are effectively antistatic. The polymer substrate is polyethylene, polypropylene, ethylene-propylene copolymer, polyethylene terephthalate, polybutylene terephthalate, polyethylene naphthalate, polyamide 4, polyamide 6, polyamide 6,6, polyamide 6,10, polyamide 6,9, polyamide 6,12, polyamide 4,6, polyamide 12,12, polyamide 11, polyamide 12 and polylactic acid. Thus, polypropylene was blended with 1% sodium C10-18-alkanesulfonates and 4% azacyclotridecan-2-one-hexanedioic acid- α -hydro- ω -hydroxypoly(oxy-1,2-ethanediyl) copolymer for 10-20 min. The mixts. are then extruded at 390-410° to give antistatic polypropylene film, showing static decay time after 4 wk of 0.05 s.

IT 9011-52-3 9020-32-0 24968-97-6
26062-94-2 26098-55-5 27136-65-8
36497-34-4 50327-77-0

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)

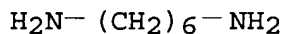
RN 9011-52-3 HCAPLUS

CN Decanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4

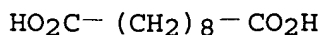
CMF C6 H16 N2



CM 2

CRN 111-20-6

CMF C10 H18 O4



RN 9020-32-0 HCAPLUS

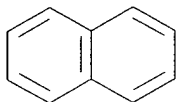
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS



2 [D1- CO₂H]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH₂-CH₂-OH

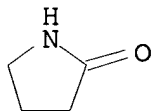
RN 24968-97-6 HCAPLUS

CN 2-Pyrrolidinone, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 616-45-5

CMF C4 H7 N O



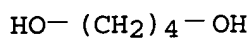
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

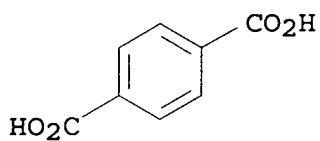
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



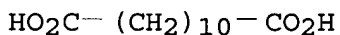
RN 26098-55-5 HCAPLUS

CN Dodecanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 693-23-2

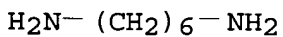
CMF C12 H22 O4



CM 2

CRN 124-09-4

CMF C6 H16 N2



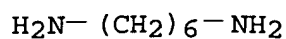
RN 27136-65-8 HCAPLUS

CN Nonanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

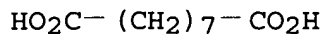
CM 1

CRN 124-09-4

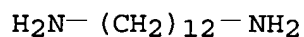
CMF C6 H16 N2



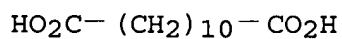
CM 2

CRN 123-99-9
CMF C9 H16 O4RN 36497-34-4 HCAPLUS
CN Dodecanedioic acid, polymer with 1,12-dodecanediamine (9CI) (CA
INDEX NAME)

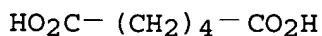
CM 1

CRN 2783-17-7
CMF C12 H28 N2

CM 2

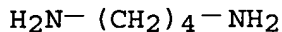
CRN 693-23-2
CMF C12 H22 O4RN 50327-77-0 HCAPLUS
CN Hexanedioic acid, polymer with 1,4-butanediamine (9CI) (CA INDEX
NAME)

CM 1

CRN 124-04-9
CMF C6 H10 O4

CM 2

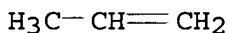
CRN 110-60-1
CMF C4 H12 N2



IT 25085-53-4, **Isotactic polypropylene**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fibers; prodn. of **antistatic** polymer compn. contg. permanent and migratory **antistatic** additives)
RN 25085-53-4 HCAPLUS
CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)

CM 1

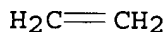
CRN 115-07-1
CMF C3 H6



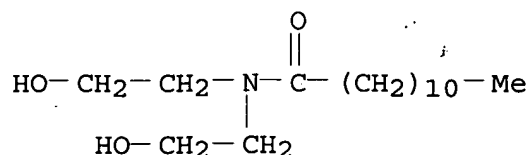
IT 9002-88-4, **Polyethylene**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(low d.; prodn. of **antistatic** polymer compn. contg. permanent and migratory **antistatic** additives)
RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

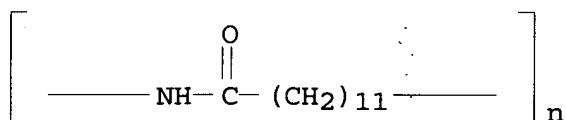
CRN 74-85-1
CMF C2 H4



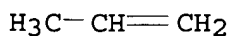
IT 120-40-1, **Lauroyl diethanolamide**
RL: MOA (Modifier or additive use); USES (Uses)
(migratory **antistatic** agent; prodn. of **antistatic** polymer compn. contg. permanent and migratory **antistatic** additives)
RN 120-40-1 HCAPLUS
CN Dodecanamide, N,N-bis(2-hydroxyethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



IT 24937-16-4, Poly[imino(1-oxo-1,12-dodecanediyl)]
 RL: MOA (Modifier or additive use); USES (Uses)
 (permanent antistatic agent; prodn. of
 antistatic polymer compn. contg. permanent and migratory
 antistatic additives)
 RN 24937-16-4 HCAPLUS
 CN Poly[imino(1-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IT 9003-07-0, Polypropylene
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
 or engineered material use); USES (Uses)
 (prodn. of antistatic polymer compn. contg. permanent
 and migratory antistatic additives)
 RN 9003-07-0 HCAPLUS
 CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 115-07-1
 CMF C3 H6



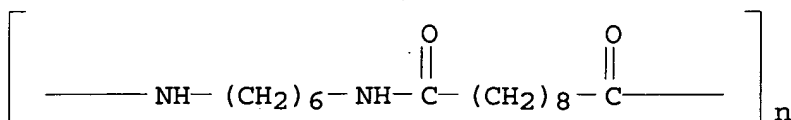
IT 9008-66-6, Polyamide 610 9010-79-1,
 Ethylene-propylene copolymer
 9020-73-9, Polyethylene naphthalate
 24936-74-1 24938-56-5, Polyamide
 4 24968-12-5, Polybutylene
 terephthalate 25038-54-4, Polyamide
 6, uses 25038-59-9, Polyethylene
 terephthalate, uses 28757-63-3, Polyamide
 69 32131-17-2, Polyamide 66, uses
 36348-71-7, Polyamide 1212 50327-22-5,
 Polyamide 46
 RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses)

(prodn. of antistatic polymer compn. contg. permanent
and migratory antistatic additives)

RN 9008-66-6 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,10-dioxo-1,10-decanediyl)] (9CI)
(CA INDEX NAME)



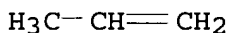
RN 9010-79-1 HCAPLUS

CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

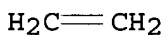
CMF C3 H6



CM 2

CRN 74-85-1

CMF C2 H4



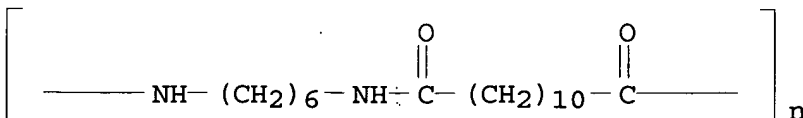
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

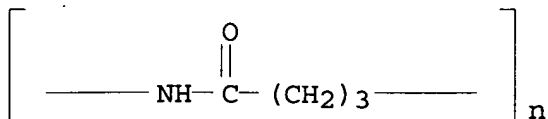
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 24936-74-1 HCAPLUS

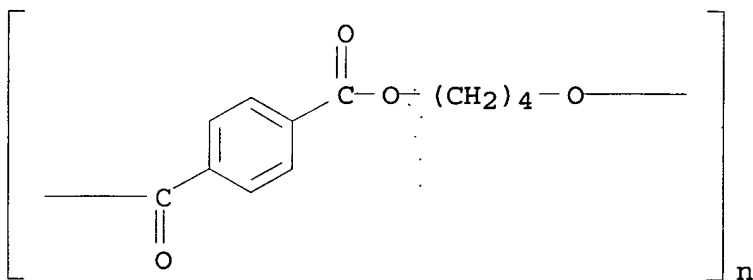
CN Poly[imino-1,6-hexanediylimino(1,12-dioxo-1,12-dodecanediyl)] (9CI)
(CA INDEX NAME)



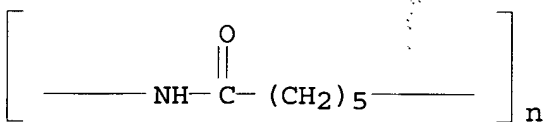
RN 24938-56-5 HCAPLUS
 CN Poly[imino(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)



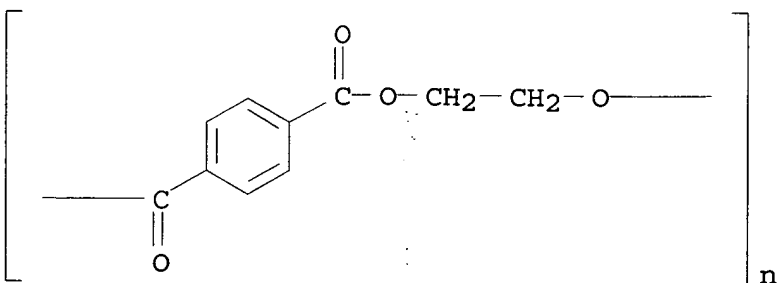
RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



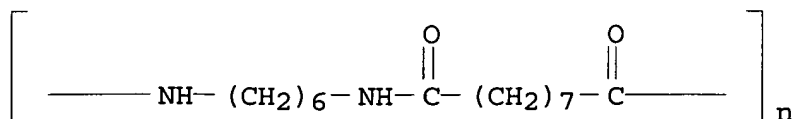
RN 25038-54-4 HCAPLUS
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



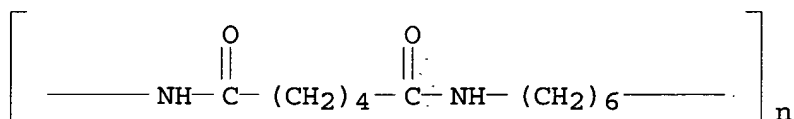
RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



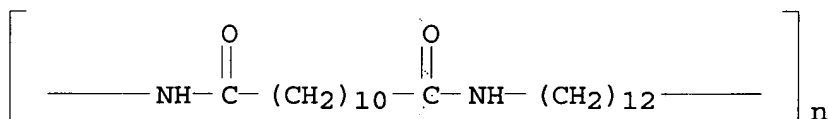
RN 28757-63-3 HCAPLUS
 CN Poly[imino-1,6-hexanediylimino(1,9-dioxo-1,9-nonanediyl)] (9CI) (CA INDEX NAME)



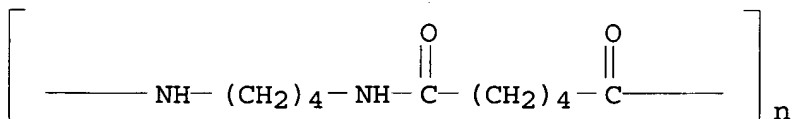
RN 32131-17-2 HCAPLUS
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



RN 36348-71-7 HCAPLUS
 CN Poly[imino(1,12-dioxo-1,12-dodecanediyl)imino-1,12-dodecanediyl] (9CI) (CA INDEX NAME)



RN 50327-22-5 HCAPLUS
 CN Poly[imino-1,4-butanediylimino(1,6-dioxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IC ICM C08K005-42
 ICS C08K005-17; C08K005-20
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 40
 ST antistatic compn contg polymer substrate additive
 polyetheresteramide
 IT Sulfonic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)

- (C10-18-alkanesulfonic, sodium salts, migratory antistatic agent; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **Antistatic agents**
Plastic films
(prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **Polyamides, uses**
Polyesters, uses
Polyolefins
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **Polypropene fibers, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **26100-51-6, Polylactic acid**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **9011-52-3 9020-32-0 24968-97-6**
26062-94-2 26098-55-5 27136-65-8
36497-34-4 50327-77-0
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **25085-53-4, Isotactic polypropylene**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fibers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **9002-88-4, Polyethylene**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(low d.; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **120-40-1, Lauroyl diethanolamide**
RL: MOA (Modifier or additive use); USES (Uses)
(migratory antistatic agent; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT **7791-07-3 24937-16-4, Poly[imino(1-oxo-1,12-dodecanediyl)]**
25038-74-8 70290-02-7
RL: MOA (Modifier or additive use); USES (Uses)
(permanent antistatic agent; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)

IT 9003-07-0, Polypropylene 26023-30-3,
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(prodn. of antistatic polymer compn. contg. permanent
and migratory antistatic additives)

IT 9008-66-6, Polyamide 610 9010-79-1,
Ethylene-propylene copolymer
9020-73-9, Polyethylene naphthalate
24936-74-1 24938-56-5, Polyamide
4 24968-12-5, Polybutylene
terephthalate 25038-54-4, Polyamide
6, uses 25038-59-9, Polyethylene
terephthalate, uses 28757-63-3, Polyamide
69 32131-17-2, Polyamide 66, uses
36348-71-7, Polyamide 1212 50327-22-5,
Polyamide 46
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(prodn. of antistatic polymer compn. contg. permanent
and migratory antistatic additives)

L75 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:606495 HCAPLUS

DOCUMENT NUMBER: 141:141503

TITLE: Heat-shrinking abrasion-resistant
polyester films

INVENTOR(S): Inagaki, Kyoko; Hayakawa, Satoshi; Hashimoto,
Masatoshi; Tabota, Norimi; Oda, Naonobu

PATENT ASSIGNEE(S): Toyo Boseki Kabushiki Kasisha, Japan

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004063255	A1	20040729	WO 2003-JP16650	20031224

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

AU 2003292769	A1	20040810	AU 2003-292769	200312 24
EP 1582556	A1	20051005	EP 2003-768189	200312 24
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1729235	A	20060201	CN 2003-80107243	200312 24
US 2006063008	A1	20060323	US 2005-539478	200506 22
PRIORITY APPLN. INFO.:			JP 2002-372651	A 200212 24
			JP 2003-31353	A 200302 07
			JP 2003-94556	A 200303 31
			WO 2003-JP16650	W 200312 24

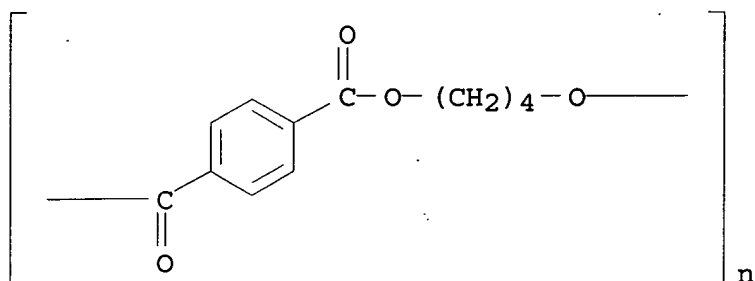
AB The films exhibit a coeff. of dynamic friction between surfaces on ≥ 1 side thereof (μ_d) of ≤ 0.27 and range (R) of ≤ 0.05 and further exhibit a wt. loss, resulting from ten reciprocations of friction on the surface under a load of 400 g in a friction test conducted by means of a tester of dyed product fastness to rubbing having a friction member fitted with a sand paper of #1000 grain diam., of ≤ 0.24 g/m². The films showed good sliding property when used as labels of beverage bottles in vending machines.

IT 24968-12-5, Polybutylene terephthalate
25038-59-9, PET polyester, uses 26062-94-2
, Polybutylene terephthalate
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(heat-shrinking polyester films with good abrasion resistance and sliding property for labels)

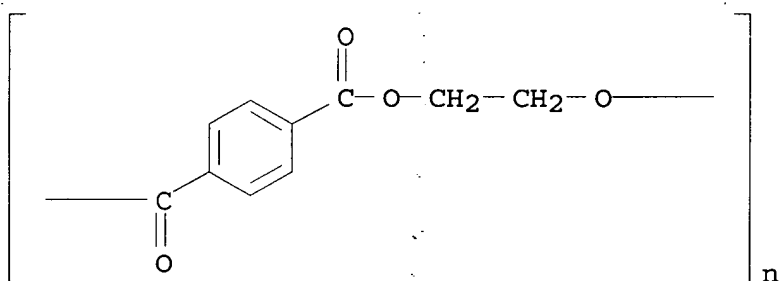
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA

INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4

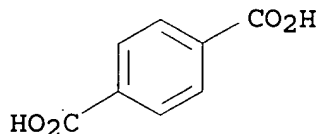
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 9002-88-4, Polyethylene

RL: TEM (Technical or engineered material use); USES (Uses)
 (waxes, Hytec E 4BS, Hytec E 8237, lubricant coatings for labels;
 heat-shrinking polyester films with good abrasion
 resistance and sliding property for labels)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IC ICM C08J007-04

ICS B29C061-06; B32B027-36; C08J005-18

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

ST vending machine beverage bottle label heat shrinking
 polyester film; abrasion resistance heat shrink
 polyester label

IT Bottles

(beverage; heat-shrinking polyester films with good
 abrasion resistance and sliding property for labels)

IT Polyester rubber

RL: TEM (Technical or engineered material use); USES (Uses)
 (butanediol-caprolactone-terephthalic acid; heat-shrinking
 polyester films with good abrasion resistance and sliding
 property for labels)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings for labels; heat-shrinking polyester films
 with good abrasion resistance and sliding property for labels)

IT Coating materials

Heat-shrinkable films

Labels

Lubricants

(heat-shrinking polyester films with good abrasion
 resistance and sliding property for labels)

IT Polyesters, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
 or engineered material use); USES (Uses)

- (heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT Hydrocarbon waxes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(microcryst., Nopco 1245M-SN; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**polyester**; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 98-11-3D, **Benzenesulfonic acid**, alkyl derivs.,
sodium salt 188070-73-7, TB 702 188364-69-4, TB 214
727423-13-4, Invadiile BCN
RL: TEM (Technical or engineered material use); USES (Uses)
(**antistatic agent**; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 154453-08-4, Vylonal TIE 51 350030-51-2, Hydran HW 345
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings for labels; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 24968-12-5, **Polybutylene terephthalate**
25038-59-9, PET **polyester**, uses 25038-91-9,
1,4-Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer 26062-94-2, **Polybutylene terephthalate** 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 742096-90-8, Hytec E 9015
RL: TEM (Technical or engineered material use); USES (Uses)
(lubricant coatings for labels; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 9003-53-6, G 797N
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**polyester** blends; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 50276-37-4, 1,4-Butanediol-caprolactone-terephthalic acid copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(rubber; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 9002-88-4, **Polyethylene**
RL: TEM (Technical or engineered material use); USES (Uses)
(waxes, Hytec E 4BS, Hytec E 8237, lubricant coatings for labels; heat-shrinking **polyester** films with good abrasion

resistance and sliding property for labels)

L75 ANSWER 14 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:569969 HCAPLUS
 DOCUMENT NUMBER: 141:124551
 TITLE: Light diffusion polyester resin composition
 INVENTOR(S): Kang, Chung-seock; Kim, Dae-jin; Kim, Young-bum
 PATENT ASSIGNEE(S): Kolon Industries Inc., S. Korea
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058889	A1	20040715	WO 2003-KR902	20030507
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2004060696	A	20040706	KR 2003-9335	20030214
TW 225878	B1	20050101	TW 2003-92110115	20030430
AU 2003223143	A1	20040722	AU 2003-223143	20030507
CN 1659230	A	20050824	CN 2003-813637	20030507
EP 1576052	A1	20050921	EP 2003-719258	20030507
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006503975	T2	20060202	JP 2005-509756	

US 2006100322 A1 20060511 US 2005-515977 200305
07
PRIORITY APPLN. INFO.: KR 2002-84729 A 200508
10
200212
27
KR 2003-9335 A 200302
14
WO 2003-KR902 W 200305
07

AB A light diffusion resin compn. is composed of 100 parts polyester resin selected from poly(ethyleneterephthalate-co-dimethylcyclohexyl terephthalate), PET, PBT, and PEN, 0.1-15 parts light diffuser particles comprising 50-100 mol% PMMA and <50 mol% polystyrene, which have an av. particle of 5-200 μ m, 0.3-5 parts antistatic agent selected from C2-50 tetra-alkyl or tetra-aryl-ammonium salt, C2-30 alkyl or aryl sulfonate, C2-30 alkyl or aryl phosphate, C2-30 alkyl or aryl betaine, and C2-30 glycerol esters, and 0.001-0.1 part optical brightener selected from benzotriazole-phenylcoumarin, bisbenzoxazole, triazine-phenylcoumarins, bis(styryl)biphenyls, and naphthotriazole-phenylcoumarin. Thus, amorphous poly(ethyleneterephthalate-co-dimethylcyclohexyl terephthalate) 100, light diffusion resin, PMMA/polystyrene bead (MPB X 10), 1.5, sodium dodecylsulfonate 1.0, and bis(styryl)biphenyl 0.005 parts were melting mixed to receive a light diffusion polyester compn. with a haze of 93 % and a light transmittance of 86 %.

IT 9020-32-0 26062-94-2

RL: POF (Polymer in formulation); USES (Uses)
(assumed monomers; light diffusion polyester resin compn.)

RN 9020-32-0 HCAPLUS

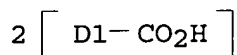
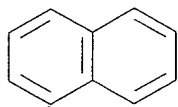
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

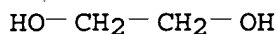
CRN 28604-87-7

CMF C12 H8 O4

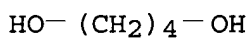
CCI IDS



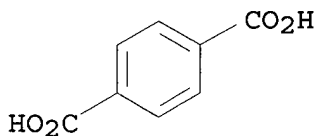
CM 2

CRN 107-21-1
CMF C2 H6 O2RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4
CMF C4 H10 O2

CM 2

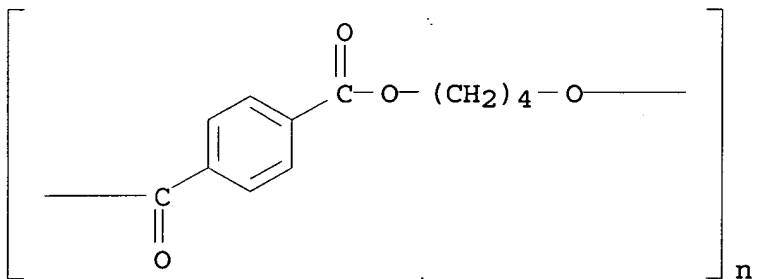
CRN 100-21-0
CMF C8 H6 O4IT 9020-73-9, Polyethylenenaphthalate 24968-12-5, PBT
25038-59-9, PET polymer, uses
RL: POF (Polymer in formulation); USES (Uses)
(light diffusion polyester resin compn.)
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

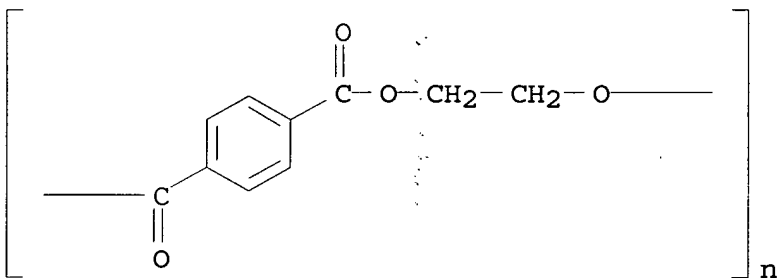
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



IC ICM C08L067-00

ICS C08L033-12; G02B001-04

CC 37-6 (Plastics Manufacture and Processing)

ST polyethyleneterephthalatedimethylcyclohexylterephthalate PMMA

polystyrene sodium dodecylsulfonate bisstyrylbiphenyl

polyester compn

IT Phosphates, uses

RL: MOA (Modifier or additive use); USES (Uses)

(C2-30 alkyl or aryl; light diffusion **polyester** resin
compn.)

IT **Sulfonic acids**, uses

RL: MOA (Modifier or additive use); USES (Uses)

(alkanesulfonic, salts, C2-30; light diffusion **polyester**
resin compn.)

IT Betaines

RL: MOA (Modifier or additive use); USES (Uses)

- (alkyl, C2-30; light diffusion polyester resin compn.)
- IT Sulfonic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(arenesulfonic, salts, C2-30; light diffusion polyester resin compn.)
- IT Polymer blends
RL: POF (Polymer in formulation); USES (Uses)
(beads; light diffusion polyester resin compn.)
- IT Polyesters, uses
RL: POF (Polymer in formulation); USES (Uses)
(light diffusion polyester resin compn.)
- IT Aromatic compounds
RL: MOA (Modifier or additive use); USES (Uses)
(sulfonates, C2-30; light diffusion polyester resin compn.)
- IT Quaternary ammonium compounds, uses
RL: MOA (Modifier or additive use); USES (Uses)
(tetra-alkyl or tetra-aryl; light diffusion polyester resin compn.)
- IT 9020-32-0 26062-94-2
RL: POF (Polymer in formulation); USES (Uses)
(assumed monomers; light diffusion polyester resin compn.)
- IT 9003-53-6, Polystyrene
RL: POF (Polymer in formulation); USES (Uses)
(blend with PMMA, bead; light diffusion polyester resin compn.)
- IT 9011-14-7, PMMA
RL: POF (Polymer in formulation); USES (Uses)
(blend, bead, MPB-X 12; light diffusion polyester resin compn.)
- IT 955-10-2D, 3-Phenylcoumarin, benzotriazolyl, naphthotriazolyl and triazinyl derivs. 2386-53-0, Sodium dodecylsulfonate 4061-32-9 7210-07-3, 2,2'-Bibenzoxazole
RL: MOA (Modifier or additive use); USES (Uses)
(light diffusion polyester resin compn.)
- IT 9020-73-9, Polyethylenenaphthalate 24968-12-5, PBT 25038-59-9, PET polymer, uses 721883-19-8 722495-67-2, Diasphere MPB-X 10
RL: POF (Polymer in formulation); USES (Uses)
(light diffusion polyester resin compn.)

L75 ANSWER 15 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:391332 HCAPLUS

DOCUMENT NUMBER: 140:392062

TITLE: Rotary electronic parts with good heat and impact resistance

INVENTOR(S): Kono, Mari; Sato, Mitsunobu

PATENT ASSIGNEE(S): Nihon GE Plastics, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004137348	A2	20040513	JP 2002-302208	20021016

PRIORITY APPLN. INFO.: JP 2002-302208
 20021016

AB Title electronic parts comprise (A) thermoplastic **polyesters** 40-65, (B) polycarbonates 30-45, and (C) **antistatic** agents 5-15%. The parts are useful for tape-type recording media, optical disk bearings, etc. Thus, a compn. contg. poly(butylene terephthalate), bisphenol A-phosgene copolymer, and PLST (polyamide-polyester-polyether) was extruded and injection molded to give a test piece showing intrinsic surface resistivity $20.0 \pm 10^{12} \Omega$ after 24 h at 23° and relative humidity 50%, Izod impact strength 52.7 J/m, and heat distortion temp. 123.8°.

IT 26062-94-2
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (assumed monomers; rotary electronic parts with good **antistatic** property and high heat and impact resistance)

RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

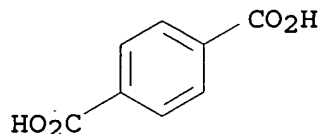
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

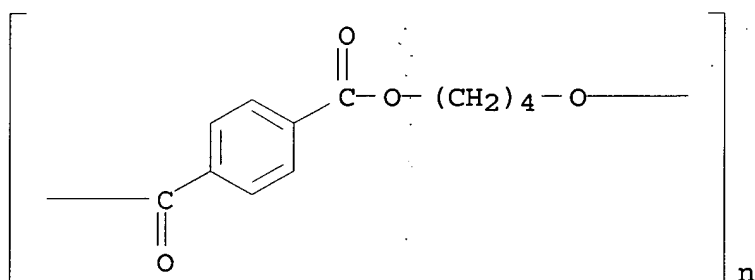
CRN 100-21-0
 CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate)
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (rotary electronic parts with good **antistatic** property and high heat and impact resistance)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08J005-00
 ICS C08L067-00; C08L069-00; C08L077-12; G11B023-087

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 74, 76, 77

ST **polyester polycarbonate antistatic** rotary electronic part; impact resistance **polyester polycarbonate** rotary electronic part; heat resistance **polyester polycarbonate** rotary electronic part; tape hub **polyester polycarbonate antistatic** property

IT **Sulfonic acids, uses**
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (C14-17-sec-alkanesulfonic, sodium salts, SAS 93, **antistatic** agents; rotary electronic parts with good **antistatic** property and high heat and impact resistance)

IT Impact-resistant materials
 (heat-resistant; rotary electronic parts with good **antistatic** property and high heat and impact resistance)

IT Magnetic tapes
 (hubs for; rotary electronic parts with good **antistatic** property and high heat and impact resistance)

IT Heat-resistant materials
 (impact-resistant; rotary electronic parts with good **antistatic** property and high heat and impact resistance)

IT Polyethers, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polyamide-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyethers, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polyamide-polyester-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyesters, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polyamide-polyether-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyethers, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polyester-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyamides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polyester-polyether-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyamides, uses
Polyesters, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polyether-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Antistatic agents
Antistatic materials
(rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polycarbonates, uses
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polymer blends
RL: TEM (Technical or engineered material use); USES (Uses)
(rotary electronic parts with good antistatic property and high heat and impact resistance)

IT 688048-10-4, PLST

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT 26062-94-2

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT 24936-68-3, Bisphenol A-phosgene copolymer, sru, uses

24968-12-5, Poly(butylene terephthalate) 25971-63-5, Bisphenol A-phosgene copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(rotary electronic parts with good antistatic property and high heat and impact resistance)

L75 ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:252700 HCAPLUS

DOCUMENT NUMBER: 140:272301

TITLE: Preparation of static spunbonded nonwoven fabrics

INVENTOR(S): Ortega, Albert E.

PATENT ASSIGNEE(S): Cerex Advanced Fabrics, Inc., USA

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004025004	A1	20040325	WO 2003-US28909	20030915
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003272396	A1	20040430	AU 2003-272396	20030915

US 2004121679 A1 20040624 US 2003-662492 200309
15
EP 1537260 A1 20050608 EP 2003-754576 200309
15
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK
JP 2005539152 T2 20051222 JP 2004-536332 200309
15
PRIORITY APPLN. INFO.: US 2002-410557P P 200209
13
WO 2003-US28909 W 200309
15

AB A spunbonded nonwoven fabric with high uniformity and reduced defects is prepd. by: (1) forming a melt blend contg. at least one polymer, such as nylon, polyester, and polyethylene, and at least one antistatic agent, such as saccharine, quaternary ammonium salt, and ethylene oxide copolymer, (2) extruding the blend in the form of plurality of filaments, (3) directing the filaments through a slot or jet attenuation device and drawing the filaments to orient them, (4) depositing the filaments onto a collection surface to form web and bonding the filaments of the web. Thus, an antistatic additive (PTSS 1378) comprising polycaprolactam, sulfonic acids, C10-18 alkane, and sodium salt, was mixed with nylon 66 and spun using a slot pilot line to receive antistatic filaments.

IT 9011-52-3 26062-94-2, Polybutylene terephthalate 26098-55-5

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(assumed monomers, fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)

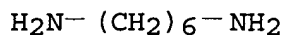
RN 9011-52-3 HCAPLUS

CN Decanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

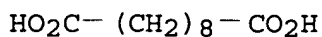
CM 1

CRN 124-09-4

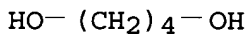
CMF C6 H16 N2



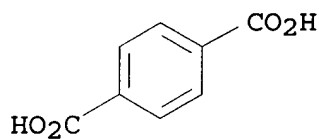
CM 2

CRN 111-20-6
CMF C10 H18 O4RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

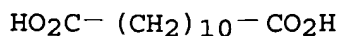
CM 1

CRN 110-63-4
CMF C4 H10 O2

CM 2

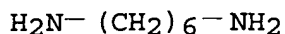
CRN 100-21-0
CMF C8 H6 O4RN 26098-55-5 HCAPLUS
CN Dodecanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX
NAME)

CM 1

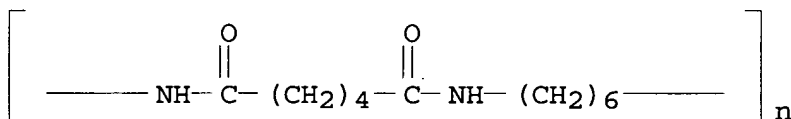
CRN 693-23-2
CMF C12 H22 O4

CM 2

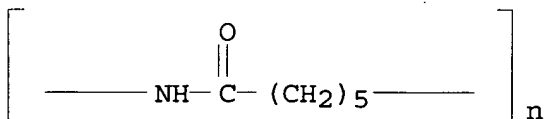
CRN 124-09-4
CMF C6 H16 N2



IT 32131-17-2, Nylon 66, uses
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (fiber, bicomponent with nylon 6 fiber, nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
 RN 32131-17-2 HCAPLUS
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



IT 25038-54-4, Nylon 6, uses
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (fiber, bicomponent with nylon 66 fiber nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
 RN 25038-54-4 HCAPLUS
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IT 9002-88-4, Polyethylene 9008-66-6, Nylon
 610 24936-74-1, Nylon 612 24937-16-4, Nylon 12
 24968-12-5, Polybutylene terephthalate
 25035-04-5, Nylon 11 25085-53-4, Isotactic polypropylene
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

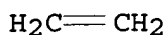
(fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)

RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

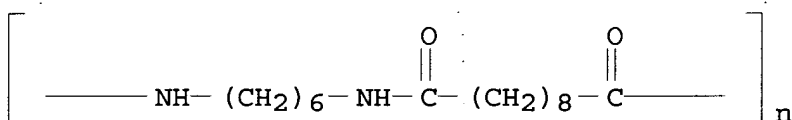
CM 1

CRN 74-85-1

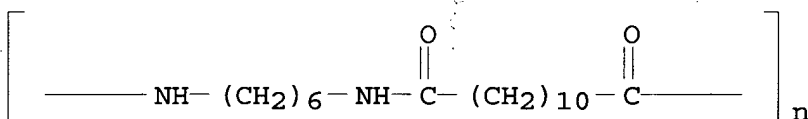
CMF C2 H4



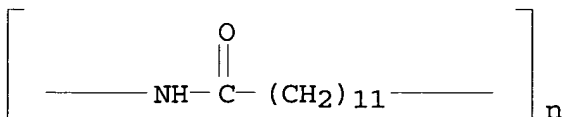
RN 9008-66-6 HCAPLUS
CN Poly[imino-1,6-hexanediylimino(1,10-dioxo-1,10-decanediyl)] (9CI)
(CA INDEX NAME)



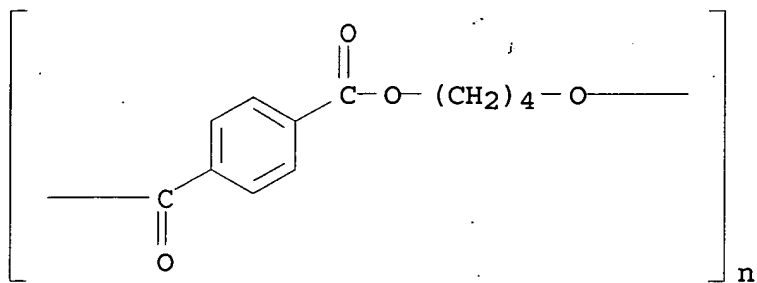
RN 24936-74-1 HCAPLUS
CN Poly[imino-1,6-hexanediylimino(1,12-dioxo-1,12-dodecanediyl)] (9CI)
(CA INDEX NAME)



RN 24937-16-4 HCAPLUS
CN Poly[imino(1-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)

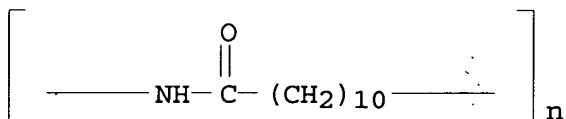


RN 24968-12-5 HCAPLUS
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25035-04-5 HCAPLUS

CN Poly[imino(1-oxo-1,11-undecanediyl)] (9CI) (CA INDEX NAME)



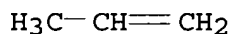
RN 25085-53-4 HCAPLUS

CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM D01F001-09

ICS D01F006-60; D01F008-12; D04H003-12

CC 40-10 (Textiles and Fibers)

ST nylon 66 polycaprolactam sulfonic acid

antistatic spunbonded nonwoven fabrics

IT Polyamide fibers, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(66; prepn. of static spunbonded nonwoven fabrics)

IT Polyamide fibers, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(6; prepn. of static spunbonded nonwoven fabrics)

IT Crown ethers

Polyethers, uses

Polysulfides

- Quaternary ammonium compounds, uses
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Sulfamides
RL: MOA (Modifier or additive use); USES (Uses)
(arom., antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Halohydrins
RL: MOA (Modifier or additive use); USES (Uses)
(epihalohydrins, polymers, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Polyolefin fibers
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(ethylene, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Polyamides, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber, bicomponent with nylon 6 fiber, nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
- IT Polyamides, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber, bicomponent with nylon 66 fiber nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
- IT Polyester fibers, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(lactic acid, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Heterocyclic compounds
RL: MOA (Modifier or additive use); USES (Uses)
(nitrogen, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Acrylic fibers, uses
Polyamide fibers, uses
Polyester fibers, uses
Polypropene fibers, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Polyester fibers, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

- (poly(tetramethylene terephthalate), nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyamines, nonpolymeric, **antistatic** agent; prepn. of static spunbonded nonwoven fabrics)
- IT Alcohols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyhydric, **antistatic** agent; prepn. of static spunbonded nonwoven fabrics)
- IT Imines
RL: MOA (Modifier or additive use); USES (Uses)
(polyimines, **antistatic** agent; prepn. of static spunbonded nonwoven fabrics)
- IT Phosphines
RL: MOA (Modifier or additive use); USES (Uses)
(polymers, **antistatic** agent; prepn. of static spunbonded nonwoven fabrics)
- IT **Antistatic** agents
Nonwoven fabrics
(prepn. of static spunbonded nonwoven fabrics)
- IT **Polyester** fibers, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(terephthalic acid-trimethylene glycol, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(tertiary, **antistatic** agent; prepn. of static spunbonded nonwoven fabrics)
- IT 75-21-8D, Ethylene oxide, polymers 81-07-2, Saccharine
100-42-5D, Styrene, polymers 110-86-1D, Pyridine, polymers
RL: MOA (Modifier or additive use); USES (Uses)
(**antistatic** agent; prepn. of static spunbonded nonwoven fabrics)
- IT 9011-52-3 25038-74-8 25587-80-8 26062-94-2,
Polybutylene terephthalate 26098-55-5
26100-51-6, Polylactic acid 26590-75-0, Polytrimethylene terephthalate
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(assumed monomers, fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT 32131-17-2, Nylon 66, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber, bicomponent with nylon 6 fiber, nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
- IT 25038-54-4, Nylon 6, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with nylon 66 fiber nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)

IT 9002-88-4, Polyethylene 9008-66-6, Nylon
610 24936-74-1, Nylon 612 24937-16-4, Nylon 12
24968-12-5, Polybutylene terephthalate
25035-04-5, Nylon 11 25085-53-4, Isotactic

polypropylene 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26546-03-2, Polytrimethylene terephthalate

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)

IT 7440-44-0, Carbon, uses

RL: MOA (Modifier or additive use); USES (Uses)

(particles, antistatic agent; prepn. of static spunbonded nonwoven fabrics)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L75 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:249767 HCAPLUS

DOCUMENT NUMBER: 140:288459

TITLE: Polyester composition and cap made of
the composition for circular fluorescent lamp
INVENTOR(S): Onda, Kayoko; Ameya, Yoshinori; Sato, Mitsunobu
PATENT ASSIGNEE(S): Nihon GE Plastics, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004091639	A2	20040325	JP 2002-254823	20020830

PRIORITY APPLN. INFO.: JP 2002-254823

20020830

AB The compn. contains 5-20 parts of an amorphous arom. polycarbonate, 20-80 parts of a halogenated compd. free from terminal halogen as a fireproofing agent, 80-130 parts of a polyester, 0.1-3 parts of a UV absorber, 0.01-5 parts of a fluoropolymer, 0.5-10

parts of an antistatic agent, and 1-15 parts of a Sb-type fireproofing aid. The cap for a circular fluorescent lamp is that made of the compn. showing high light transmission and discoloration prevention. Thus, poly(butylene terephthalate) 110, polycarbonate (ML 5221) 10, antistatic agent (SAS 93) 4, fireproofing agent (ML 4365) 60, fluoropolymer (TSAN) 0.3, Sb2O3 (SHLB 80) 10, UV absorber (UV 5411) 0.5, and a thermal stabilizer (ANOX 20) 0.2 part were mixed and molded to give test pieces showing UL-94 flame retardance V-0, surface resistivity $6 + 10^{12} \Omega/\text{cm}^2$, and total light transmittance 12%.

IT 26062-94-2, Poly(butylene terephthalate)
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(assumed monomers; polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

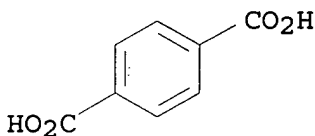
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



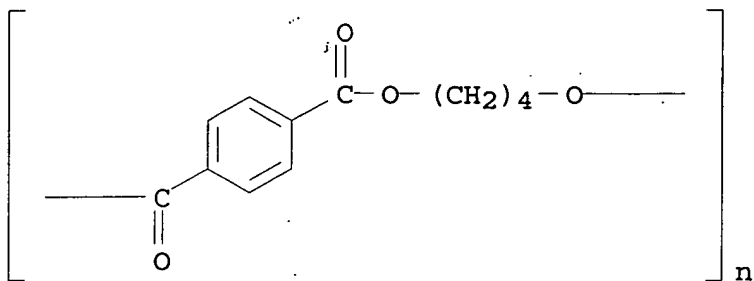
IT 24968-12-5, Poly(butylene terephthalate)

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



- IC ICM C08L067-00
ICS C08J005-00; C08K003-22; C08K005-00; C08L063-02
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
- ST **polyester** compn cap circular fluorescent lamp;
discoloration prevention **polyester** cap fluorescent lamp;
arom polycarbonate blend **polyester** cap lamp; halogen
fireproofing agent **polyester** cap lamp; fluoropolymer blend
polyester cap fluorescent lamp
- IT **Sulfonic acids**, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)
(C14-17-sec-alkanesulfonic, sodium salts, SAS 93,
antistatic agent; in **polyester** compn. for cap
for circular fluorescent lamp showing discoloration prevention)
- IT Polycarbonates, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in
formulation); PYP (Physical process); TEM (Technical or engineered
material use); PROC (Process); USES (Uses)
(arom.; **polyester** compn. for cap for circular
fluorescent lamp showing discoloration prevention)
- IT **Antistatic agents**
Fireproofing agents
UV stabilizers
(in **polyester** compn. for cap for circular fluorescent
lamp showing discoloration prevention)
- IT Fluoropolymers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(in **polyester** compn. for cap for circular fluorescent
lamp showing discoloration prevention)
- IT Molding of plastics and rubbers
(injection; of **polyester** compn. for cap for circular
fluorescent lamp showing discoloration prevention)
- IT Discoloration prevention
Fluorescent lamps
(**polyester** compn. for cap for circular fluorescent lamp
showing discoloration prevention)
- IT **Polyesters**, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in
formulation); PYP (Physical process); TEM (Technical or engineered

- material use); PROC (Process); USES (Uses)
(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT Polymer blends
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 1309-64-4, Antimony trioxide, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(SHLB 80, fireproofing agent; in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 3147-75-9, UV 5411
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(UV absorber; in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 26062-94-2, Poly(butylene terephthalate)
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(assumed monomers; polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 154214-44-5, ML 4365
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(fireproofing agent; in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 675128-83-3, TSAN
RL: MOA (Modifier or additive use); USES (Uses)
(in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 24968-12-5, Poly(butylene terephthalate) 675128-74-2, ML 5221
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)

L75 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:203385 HCAPLUS

DOCUMENT NUMBER: 140:236793

TITLE: Matrix tray with tacky surfaces for handling semiconductor devices

INVENTOR(S): Extrand, Charles W.; Manganiello, Frank

PATENT ASSIGNEE(S): Entegris, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048009	A1	20040311	US 2002-241815	20020911
US 6926937	B2	20050809		
JP 2006505457	T2	20060216	JP 2004-536085	20030904
PRIORITY APPLN. INFO.:			US 2002-241805	A 20020911
			US 2002-241815	A 20020911
			WO 2003-US27533	W 20030904

AB A tray for handling and retaining a plurality of small components comprising a rigid body portion with a plurality of pockets formed therein. Each of the pockets has an elastomeric contact surface for contacting and retaining a component. The contact surface may be formed from a thermoplastic material having a surface energy between 20 dyne/cm and 100 dyne/cm, and a surface elec. resistivity of between about 1×10^4 ohms/square and 1×10^{12} ohms/square. The material for the contact portion may be urethane, polybutylene terephthalate, polyolefin, polyethylene terephthalate, styrenic block co-polymer, styrene-butadiene rubber, polyether block polyamide, or polypropylene/crosslinked EDPM rubber. The body portion may be formed from acrylonitrile-butadiene-styrene, polycarbonate, urethane, polyphenylene sulfide, polystyrene, polymethyl methacrylate, polyetherketone, polyetheretherketone, polyetherketoneketone, polyether imide, polysulfone, styrene acrylonitrile, polyethylene, polypropylene, fluoropolymer, polyolefin, or nylon. The body portion may have a peripheral border region and a downwardly projecting skirt portion to facilitate stacking of multiple trays.

IT 9002-88-4, Polyethylene 9003-07-0,
 Polypropylene

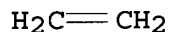
RL: TEM (Technical or engineered material use); USES (Uses)
 (rigid body; prodn. of matrix tray with tacky surfaces for

handling semiconductor devices)

RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

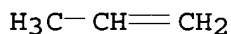
CRN 74-85-1
CMF C2 H4



RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1
CMF C3 H6

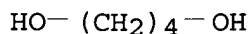


IT 26062-94-2, Polybutylene terephthalate
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(rubber, tacky surface-contg., assumed monomers; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)

RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

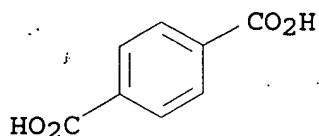
CM 1

CRN 110-63-4
CMF C4 H10 O2

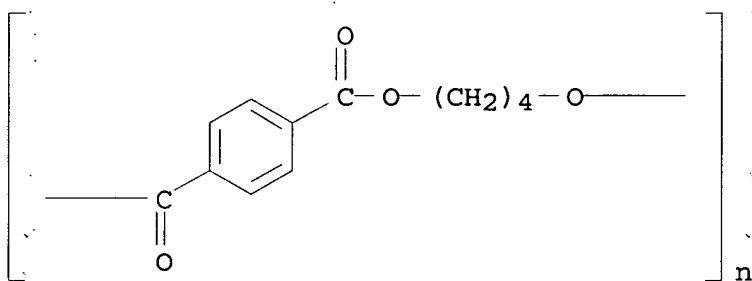


CM 2

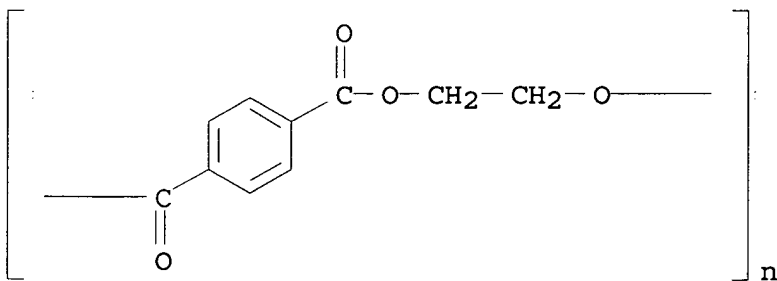
CRN 100-21-0
CMF C8 H6 O4



IT 24968-12-5, Polybutylene terephthalate
 25038-59-9, Polyethylene terephthalate,
 uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (rubber, tacky surface-contg.; prodn. of matrix tray with tacky
 surfaces for handling semiconductor devices)
 RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IC ICM B32B001-02
 INCL 428034100
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 39
 IT Sulfonic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)

- (alkanesulfonic, salts, fillers, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Synthetic rubber, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polyamide-polyether, block, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Antistatic materials
Conducting polymers
Plates
(prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Fluoropolymers, uses
Polyamides, uses
Polycarbonates, uses
Polyolefins
Polysulfones, uses
Polythiophenylenes
Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(rigid body; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(rubber, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT EPDM rubber
Polyester rubber
Polyolefin rubber
Styrene-butadiene rubber, uses
Thermoplastic rubber
Urethane rubber, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT 9002-88-4, Polyethylene 9003-07-0,
Polypropylene 9003-53-6, Polystyrene 9003-56-9, ABS
9011-14-7, Polymethyl methacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(rigid body; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT 26062-94-2, Polybutylene terephthalate
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(rubber, tacky surface-contg., assumed monomers; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT 24968-12-5, Polybutylene terephthalate
25038-59-9, Polyethylene terephthalate,

uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(rubber, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 19 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:735019 HCAPLUS

DOCUMENT NUMBER: 139:261752

TITLE: Resin additive with moisture absorbing or moisture absorbing-releasing characteristics

INVENTOR(S): Iwafuji, Masaki; Nakagawa, Masao

PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003261854	A2	20030919	JP 2002-344692	20021127
				20011127

PRIORITY APPLN. INFO.: JP 2001-360585 A

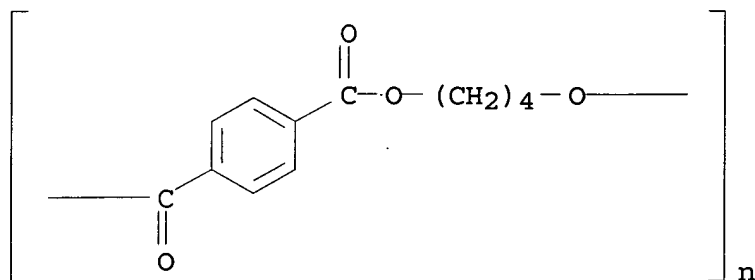
AB Title additive for resin with improved antistatic property comprises (poly)amide prepd. from (A) primary amine contg. polyoxyethylene chain and (B) sulfonic acid group-contg. carboxylic acid. Thus an additive prepd. by polymn. of sodium 5-sulfoisophthalate with polyoxyethylene diaminomethyl ether was molded with poly(butylene terephthalate) (Duranex 2000) to give a sheet for testing, showing moisture absorption rate (%) 3.1 at 20° and relative humidity 65% (w1), and 8.3 at 30° and relative humidity 90% (w2), surface specific resistance 3.1 + 10¹³, and moisture absorbing-releasing rate (%) 5.2 under conditions of w1-w2.

IT 24968-12-5, Duranex 2000 25038-54-4, Ube Nylon 1013B, properties 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

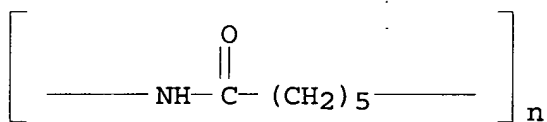
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(prepn. of polyamide additive with moisture absorbing or moisture absorbing-releasing characteristics for improving antistatic property of resins)

RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-54-4 HCAPLUS
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

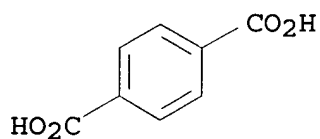
CM 1

CRN 110-63-4
 CMF C4 H10 O2



CM 2

CRN 100-21-0
 CMF C8 H6 O4



IC ICM C09K003-00
ICS B32B027-34; C08G069-42; C08J005-00; C08J007-04; C08L101-00;
C09K003-16; C08L077-06

CC 37-2 (Plastics Manufacture and Processing)

ST **polyamide** moisture absorbing releasing agent resin
antistatic property

IT Absorption
(moisture; prepn. of **polyamide** additive with moisture
absorbing or moisture absorbing-releasing characteristics for
improving **antistatic** property of resins)

IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(**polyamide**-; prepn. of **polyamide** additive
with moisture absorbing or moisture absorbing-releasing
characteristics for improving **antistatic** property of
resins)

IT **Polyamides**, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(polyoxyalkylene-; prepn. of **polyamide** additive with
moisture absorbing or moisture absorbing-releasing
characteristics for improving **antistatic** property of
resins)

IT Amides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(prepn. of (poly)amide additive with moisture absorbing or
moisture absorbing-releasing characteristics for improving
antistatic property of resins)

IT **Antistatic** agents
(prepn. of **polyamide** additive with moisture absorbing
or moisture absorbing-releasing characteristics for improving
antistatic property of resins)

IT **Polyamides**, properties
Polyesters, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(prepn. of **polyamide** additive with moisture absorbing
or moisture absorbing-releasing characteristics for improving
antistatic property of resins)

IT **Polyamides**, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(prepn. of **polyamide** additive with moisture absorbing
or moisture absorbing-releasing characteristics for improving
antistatic property of resins)

IT 600180-39-0P 600180-40-3P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(prepn. of **polyamide** additive with moisture absorbing
or moisture absorbing-releasing characteristics for improving
antistatic property of resins)

IT 24968-12-5, Duranex 2000 25038-54-4, Ube Nylon
1013B, properties 26062-94-2, 1,4-Butanediol-terephthalic
acid copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(prepn. of **polyamide** additive with moisture absorbing
or moisture absorbing-releasing characteristics for improving
antistatic property of resins)

L75 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:734933 HCAPLUS

DOCUMENT NUMBER: 139:246691

TITLE: **Antistatic** heat-resistant
polyester resin composition and optical
reflector

INVENTOR(S): Onda, Kayoko; Sato, Mitsunobu; Furukawa,
Masazumi

PATENT ASSIGNEE(S): Nihon GE Plastics, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003261750	A2	20030919	JP 2002-63864	200203 08
PRIORITY APPLN. INFO.:				200203 08

AB Title compn. comprises (A) 100 parts of **polyester** resins
such as Dianite MA 580, (B) 0-100 parts of inorg. fillers such as NK
48, (C) 0-400 parts of polycarbonates, (D) **antistatic**
agents 0.1-50 wt% to total amt. of A, B, and C. with load flexible
temp. at least 120° measured at load amt. 4.6 kg/cm2.

IT 26062-94-2
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(assumed monomers; prodn. of **antistatic** heat-resistant
polyester resin compn. and optical reflector)

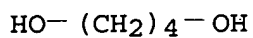
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4

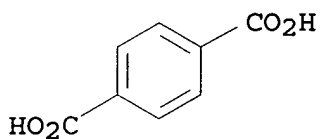
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4

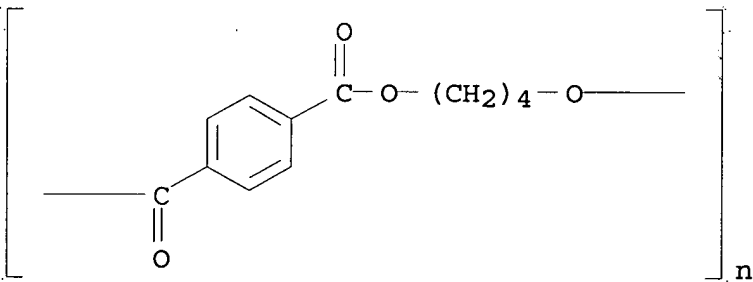


IT 24968-12-5, PBT 25038-59-9, Dianite MA 580, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(prodn. of antistatic heat-resistant polyester resin compn. and optical reflector)

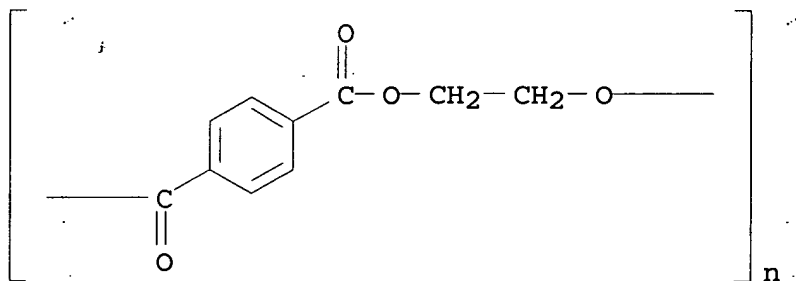
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08L067-00
ICS B32B027-36; C08J005-00; C08K003-00; C08K005-17; C08K005-42;
C08L069-00

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73

ST **antistatic** heat resistant **polyester** resin compn
optical reflector

IT **Sulfonic acids**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(C14-17-sec-alkanesulfonic, sodium salts, SAS 93,
antistatic agents; prodn. of **antistatic**
heat-resistant **polyester** resin compn. and optical
reflector)

IT Polymer blends
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(**polyester**-polycarbonate; prodn. of **antistatic**
heat-resistant **polyester** resin compn. and optical
reflector)

IT **Antistatic agents**
Fillers
Heat-resistant materials
Optical reflectors
(prodn. of **antistatic** heat-resistant **polyester**
resin compn. and optical reflector)

IT Polycarbonates, uses
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(prodn. of **antistatic** heat-resistant **polyester**
resin compn. and optical reflector)

IT **26062-94-2**
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(assumed monomers; prodn. of **antistatic** heat-resistant
polyester resin compn. and optical reflector)

IT 14807-96-6, NK 48, uses
RL: MOA (Modifier or additive use); USES (Uses)
(fillers; prodn. of **antistatic** heat-resistant
polyester resin compn. and optical reflector)

IT 24968-12-5, PBT 25038-59-9, Dianite MA 580, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (prodn. of antistatic heat-resistant polyester
 resin compn. and optical reflector)

L75 ANSWER 21 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:539607 HCAPLUS

DOCUMENT NUMBER: 137:94914

TITLE: Antistatic flexible intermediate bulk
 container

INVENTOR(S): Jud, Rene; Minder, Ernst; Krause, Eberhard

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055411	A1	20020718	WO 2002-EP93	20020108
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 232246	B1	20050511	TW 2001-90129258	20011127
CA 2432001	AA	20020718	CA 2002-2432001	20020108
EP 1351867	A1	20031015	EP 2002-708261	20020108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004525039	T2	20040819	JP 2002-556101	20020108
US 2004058604	A1	20040325	US 2003-250963	200307

PRIORITY APPLN. INFO.: EP 2001-810035 A 10
 200101
 15
 WO 2002-EP93 W 200201
 08

AB The woven **antistatic** flexible intermediate bulk container (FIBC), which safely be used with goods holding a considerable explosion rick such as chem. powders or granules or wheat due to electrostatic charging, comprises a **polyolefin** fiber or strip contg. an **antistatic** additive such as a **polyetheresteramide** and a **polyester-ether** block copolymer, or an **antistatic** compn. contg. the **polyetheresteramide** or the **polyester-ether** block copolymer.

IT 25085-53-4, Isotactic **polypropylene**
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (fibers; **antistatic** flexible intermediate bulk container)

RN 25085-53-4 HCAPLUS

CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM B65D088-16
 ICS D01F006-04; D01F006-06; D01F001-09; D01F006-46

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 40, 59

ST **antistatic polypropylene** fiber intermediate bulk container; **polyether polyester polyamide** **antistatic** agent; **polyester polyether** block copolymer **antistatic** agent

IT Containers
 (FIBC; **antistatic** flexible intermediate bulk container)

IT Acrylic fibers, uses
Polyamide fibers, uses
Polyester fibers, uses
 Polyurethane fibers
 RL: MOA (Modifier or additive use); USES (Uses)
 (**antistatic** agents; **antistatic** flexible intermediate bulk container)

IT Antistatic agents
Textiles
(antistatic flexible intermediate bulk container)

IT Polyolefin fibers
Polypropene fibers, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(antistatic flexible intermediate bulk container)

IT Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyamide-polyester-, antistatic
agents; antistatic flexible intermediate bulk
container)

IT Polyesters, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyamide-polyether-, antistatic agents;
antistatic flexible intermediate bulk container)

IT Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyester-, block, antistatic agents;
antistatic flexible intermediate bulk container)

IT Polyamides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyester-polyether-, antistatic agents;
antistatic flexible intermediate bulk container)

IT Polyesters, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyether-, block, antistatic agents;
antistatic flexible intermediate bulk container)

IT Synthetic polymeric fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(vinyl acetate, antistatic agents; antistatic
flexible intermediate bulk container)

IT 260368-70-5, Irgastat P 22 401844-75-5, Irgastat P 18
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agent; antistatic flexible
intermediate bulk container)

IT 2926-27-4, Trifluoromethanesulfonic acid,
potassium salt 2926-30-9, Trifluoromethanesulfonic
acid, sodium salt 7601-89-0, Sodium perchlorate
7778-74-7, Potassium perchlorate 7791-03-9, Lithium perchlorate
9003-20-7, Poly(vinyl acetate) 10034-81-8, Magnesium perchlorate
13477-36-6, Calcium perchlorate 13637-61-1, Zinc perchlorate
13755-29-8 14075-53-7, Potassium tetrafluoroborate (KBF₄)
14283-07-9, Lithium tetrafluoroborate (LiBF₄) 17084-13-8,
Potassium hexafluorophosphate 29420-49-3,
Perfluorobutanesulfonic acid, potassium salt
33454-82-9, Trifluoromethanesulfonic acid,
lithium salt 55120-75-7 60871-83-2 194469-72-2, Zinc
hexafluorophosphate
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agents; antistatic flexible

intermediate bulk container)
 IT 78415-39-1, Calcium hexafluorophosphate
 RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic flexible intermediate bulk container)
 IT 9002-89-5, Polyvinyl alcohol 9003-01-4D, Poly(acrylic acid),
 esters 25014-41-9, Polyacrylonitrile 25087-26-7D,
 Poly(methacrylic acid), esters
 RL: MOA (Modifier or additive use); USES (Uses)
 (fibers, antistatic agents; antistatic
 flexible intermediate bulk container)
 IT 25085-53-4, Isotactic polypropylene
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (fibers; antistatic flexible intermediate bulk
 container)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L75 ANSWER 22 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:148670 HCAPLUS
 DOCUMENT NUMBER: 136:185077
 TITLE: Antistatic multilayer plastic films
 and decorative boards laminated with them
 INVENTOR(S): Fujii, Koji; Terauchi, Fumiko; Iwashita,
 Hiroyuki
 PATENT ASSIGNEE(S): Toyo Kohan Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002059518	A2	20020226	JP 2000-250357	200008 21
PRIORITY APPLN. INFO.: JP 2000-250357				200008 21

AB The film has an adhesive resin layer (A), a substrate resin layer (B), a printing layer (C), an adhesive layer (D) contg. 1-10% an antistatic agent, and a transparent surface resin layers (E) in this order. Alternatively, the film is a laminate of A-B-D-C-E, B-C-D-E, A-B-D-E, B-D-C-E, or A-B. Thus, an embossed PET film was laminated with a printed 2-layer film (comprising ethylene terephthalate isophthalate copolymer and PBT) via a polyester adhesive contg. 1% Rheodol TW-L 120 (nonionic

surfactant) and bonded to a Zn-Al alloy-plated steel plate to give a test piece showing good antistaticity and interlayer adhesion.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2

, Poly(butylene terephthalate)

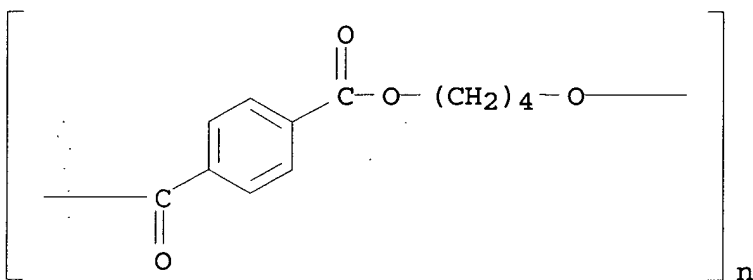
RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

(substrate; multilayer polyester films having adhesive layers contg. antistatic agents for decorative boards)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

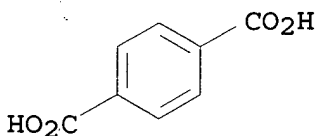
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 25038-59-9, Poly(ethylene terephthalate), uses

MEI HUANG EIC1700 REM4B28 571-272-3952

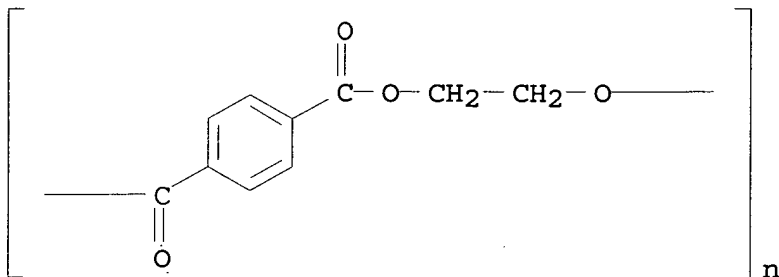
08/22/2006

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(surface layer; multilayer **polyester** films having
adhesive layers contg. **antistatic** agents for decorative
boards)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



IC ICM B32B027-18

ICS B32B033-00; C09J007-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 43, 55, 58

ST multilayer plastic film plaster decorative board; **polyester**
galvanized steel laminate interlayer adhesion; **antistaticity**
surfactant adhesive PET PBT laminate

IT **Sulfonic acids, uses**

RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)

(C12-17-alkanesulfonic, sodium salts, Chemistat 3033, adhesive
resin layer contg.; multilayer **polyester** films having
adhesive layers contg. **antistatic** agents for decorative
boards)

IT Polyurethanes, uses

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(adhesive; multilayer **polyester** films having adhesive
layers contg. **antistatic** agents for decorative boards)

IT Galvanized steel

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(decorative board; multilayer **polyester** films having
adhesive layers contg. **antistatic** agents for decorative
boards)

IT Construction materials

(decorative boards; multilayer **polyester** films having
adhesive layers contg. **antistatic** agents for decorative
boards)

IT Laminated plastics, uses

RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)
(decorative; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT Construction materials
(gypsum boards, decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT **Antistatic** agents
Laminated plastic films
(multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT **Polyesters**, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT Wood boards
(plywood, decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT **Polyesters**, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(surface layer; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 12597-69-2, Steel, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(Zn-Al alloy-plated, decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 12597-68-1, Stainless steel, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 9005-64-5, Rheodol TW-L 120
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(nonionic surfactant, adhesive layer contg.; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 11149-84-1
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(steel plated with; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 9017-34-9 24968-12-5, Poly(butylene terephthalate)
26062-94-2, Poly(butylene terephthalate)

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(substrate; multilayer **polyester** films having adhesive
layers contg. **antistatic** agents for decorative boards)

IT 25038-59-9, Poly(ethylene terephthalate), uses

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(surface layer; multilayer **polyester** films having
adhesive layers contg. **antistatic** agents for decorative
boards)

IT 24938-04-3, Ethylene isophthalate terephthalate copolymer

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(surface or adhesive resin layer; multilayer **polyester**
films having adhesive layers contg. **antistatic** agents
for decorative boards)

L75 ANSWER 23 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:269369 HCAPLUS

DOCUMENT NUMBER: 134:296646

TITLE: **Antistatic** resin compositions and
thermoplastic resin compositions therewith

INVENTOR(S): Tsubaki, Takayuki; Kikuta, Manabu

PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001106850	A2	20010417	JP 1999-289063	199910 12
PRIORITY APPLN. INFO.:				199910 12

OTHER SOURCE(S): MARPAT 134:296646

AB Resin compns. contain 50-99% cationic polymers of ethylene 70-99,
acrylates 0-15, and acrylamides 1-30 mol% and 1-50% **sulfonic**
acid salts. Thus, a compn. contained 87:10:3
(molar) ethylene-Me acrylate-N-trimethylpropylammonioethylacrylamide
chloride 25, Na methanesulfonate 5, and **LDPE** 70%.

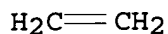
IT 9002-88-4, LD ZF 51

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(LD ZF 51 and Polyethy HD BU 004; **antistatic** cationic
resin compns. contg. **sulfonic acid**
salts)

RN 9002-88-4 HCAPLUS
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1
 CMF C2 H4

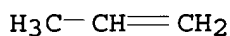


IT 9003-07-0, ME 230
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (ME 230; antistatic cationic resin compns. contg.
 sulfonic acid salts)

RN 9003-07-0 HCAPLUS
 CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

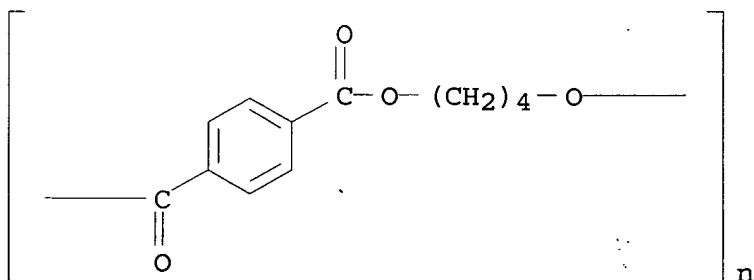
CM 1

CRN 115-07-1
 CMF C3 H6



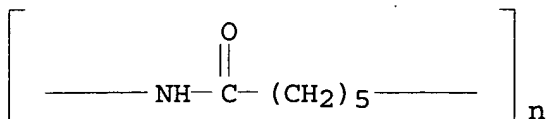
IT 24968-12-5, PBT 1401
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (PBT 1401; antistatic cationic resin compns. contg.
 sulfonic acid salts)

RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT 25038-54-4, Ube 1013B, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (Ube 1013B; antistatic cationic resin compns. contg.
 sulfonic acid salts)

RN 25038-54-4 HCAPLUS
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (antistatic cationic resin compns. contg.
 sulfonic acid salts)

RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

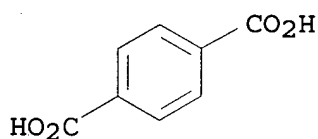
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO---(CH₂)₄---OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



IC ICM C08L023-26
 ICS C08F008-00; C08F210-02; C08K005-42; C08L101-16; C09K003-16;
 C08F220-10; C08F220-60
 CC 37-6 (Plastics Manufacture and Processing)
 ST cationic polymer sulfonate salt antistatic agent;
 methanesulfonate antistatic agent polymer; vinyl polymer
 antistatic agent sulfonate
 IT Rubber, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (-modified polystyrene; antistatic cationic resin
 compns. contg. sulfonic acid salts)
 IT Polyamides, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(Ube 1013B; antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Sulfonates
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(alkanesulfonates; antistatic cationic resin compns.
contg. sulfonic acid salts)

IT Sulfonic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkanesulfonic; antistatic cationic resin compns.
contg. sulfonic acid salts)

IT Antistatic agents
(antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Polyesters, properties
Polymer blends
Polyolefins
Thermoplastic rubber
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Hydroxides (inorganic)
Oxides (inorganic), reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Sulfonates
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(arenesulfonates; antistatic cationic resin compns.
contg. sulfonic acid salts)

IT Sulfonic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(arenesulfonic; antistatic cationic resin compns.
contg. sulfonic acid salts)

IT Polyelectrolytes
(cationic; antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Quaternary ammonium compounds, preparation
Vinyl compounds, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(polymers; antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Aromatic compounds
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(sulfonates; antistatic cationic resin compns. contg.
sulfonic acid salts)

IT Plastics, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(thermoplastics; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9011-87-4, Acrypet MD
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(Acrypet MD; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9003-56-9, JSR ABS 35
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(JSR ABS 35; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9002-88-4, LD ZF 51
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(LD ZF 51 and Polyethy HD BU 004; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9003-07-0, ME 230
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(ME 230; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 24968-12-5, PBT 1401
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(PBT 1401; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 25038-54-4, Ube 1013B, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(Ube 1013B; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 1470-83-3P, Lithium p-toluenesulfonate 2386-57-4P, Sodium methanesulfonate 14472-28-7P, Aluminum p-toluenesulfonate 36585-79-2P, Potassium ethanesulfonate 36747-44-1P, Calcium p-toluenesulfonate 58131-47-8P, Calcium methanesulfonate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 325467-20-7P 325467-21-8P 325467-22-9P 325467-24-1P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 657-84-1, Sodium p-toluenesulfonate
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9003-53-6D, Polystyrene, rubber-modified 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer 56572-92-0, Estyrene H 65
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 75-75-2, Methanesulfonic acid 104-15-4, p-
Toluenesulfonic acid, reactions 594-45-6,
Ethanesulfonic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(antistatic cationic resin compns. contg.
sulfonic acid salts)

L75 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:137288 HCAPLUS

DOCUMENT NUMBER: 134:194127

TITLE: Antistatic agent for plastics

INVENTOR(S): Dobler, Martin; Kohler, Walter; Bier, Peter;
Ebert, Wolfgang; Gorny, Rudiger; Neumann,
Siegfried

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 2001012713	A1	20010222	WO 2000-EP7524	20000803
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19943637	A1	20010222	DE 1999-19943637	19990913
CA 2388621	AA	20010222	CA 2000-2388621	20000803
BR 2000013114	A	20020430	BR 2000-13114	20000803
EP 1210388	A1	20020605	EP 2000-956384	20000803
EP 1210388	B1	20040623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				

PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
JP 2003507510 T2 20030225 JP 2001-517603

200008
03

AU 760642 B2 20030522 AU 2000-68346

200008
03

NZ 517182 A 20030725 NZ 2000-517182

200008
03

AT 269879 E 20040715 AT 2000-956384

200008
03

ES 2223569 T3 20050301 ES 2000-956384

200008
03

US 6914092 B1 20050705 US 2002-49837

200008
03

ZA 2002000382 A 20030116 ZA 2002-382

200201
16

NO 2002000743 A 20020412 NO 2002-743

200202
14

PRIORITY APPLN. INFO.:

DE 1999-19938735 A

199908
16

DE 1999-19943637 A

199909
13

WO 2000-EP7524 W

200008
03

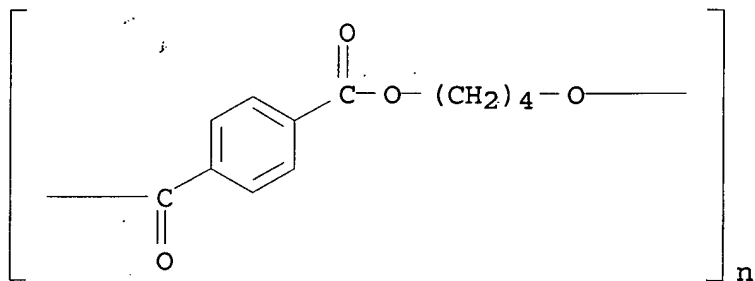
AB The invention relates to the use of fluorinated
alkylsulfonic acid salts as an
antistatic agent, esp. in plastics, and to plastics contg.
fluorinated alkylsulfonic acid salts
and molded bodies produced from said plastics.

IT 24968-12-5, Pocan B 1305 26062-94-2

RL: POF (Polymer in formulation); USES (Uses)
(fluoroalkanesulfonate salt antistatic agents for
plastics)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

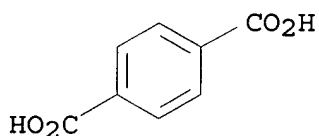
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08K005-42

CC 37-6 (Plastics Manufacture and Processing)

ST fluoroalkanesulfonate salt **antistatic** agent plastic

IT Sulfonates

RL: MOA (Modifier or additive use); USES (Uses)

(alkanesulfonates, fluoro; fluoroalkanesulfonate salt **antistatic** agents for plastics)IT **Antistatic** agents(fluoroalkanesulfonate salt **antistatic** agents for plastics)

IT Polycarbonates, uses

Polyesters, uses

Polymer blends

RL: POF (Polymer in formulation); USES (Uses)

(fluoroalkanesulfonate salt antistatic agents for plastics)

IT 56773-42-3, Tetraethylammonium perfluorooctanesulfonate
RL: MOA (Modifier or additive use); USES (Uses)
(Bayowet 248; fluoroalkanesulfonate salt antistatic agents for plastics)

IT 2795-39-3, Potassium perfluorooctanesulfonate 25628-08-4,
Tetraethylammonium perfluorobutanesulfonate 25628-16-4,
Benzyltrimethylammonium perfluorobutanesulfonate 326914-75-4,
Phenyltrimethylammonium perfluorooctanesulfonate
RL: MOA (Modifier or additive use); USES (Uses)
(fluoroalkanesulfonate salt antistatic agents for plastics)

IT 24936-68-3, Makrolon 2808, uses 24968-12-5, Pocan B 1305
25037-45-0 26062-94-2 130237-72-8, Bayblend T45
327025-49-0, Bayblend FR 2000 327025-57-0, Apec HT-KU 1-9201
RL: POF (Polymer in formulation); USES (Uses)
(fluoroalkanesulfonate salt antistatic agents for plastics)

IT 9003-56-9, ABS polymer
RL: POF (Polymer in formulation); USES (Uses)
(polycarbonate blends; fluoroalkanesulfonate salt antistatic agents for plastics)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

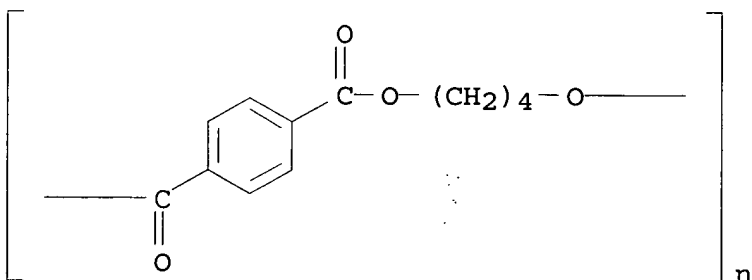
L75 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:778488 HCAPLUS
DOCUMENT NUMBER: 133:336258
TITLE: Antistatic poly(butylene terephthalate)-based resin compositions and their manufacture
INVENTOR(S): Ito, Takashi
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000309691	A2	20001107	JP 1999-117783	19990426
PRIORITY APPLN. INFO.:				19990426

OTHER SOURCE(S): MARPAT 133:336258

AB The compns., showing good mech. strength and semipermanent **antistaticity**, comprise (A) poly(butylene terephthalate) (PBT)-based resins 100, (B) polyether-polyesters prepd. from (B1) C6-20 dicarboxylic acids (esters) contg. 3-50 mol% (based on B1) Ar(CO₂R₁)(SO₃M)CO₂R₂ (Ar = C6-12 trivalent arom. group; R₁, R₂ = H, C1-6 alkyl, C6-12 aryl; M = metal, tetraalkylphosphonium, tetraalkylammonium), (B2) 40-90 wt.% (based on B) polyoxyalkylenes of Mn 200-50,000, and (B3) C2-10 glycols 5-30 parts, and (C) surfactants 0.5-6 parts. The B reduced viscosity (η) in 60:40 (wt.%) phenol/tetrachloroethane at 35° and at concn. 1.2 g/dL 1.0-5.0. The compns. may contain 0.01-5 wt.% (based on B) 2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-(C1-19-alkoxy)phenol as light stabilizers and 0.01-5 wt.% hindered phenols as antioxidants. The compns. are manufd. by polycondensation for B, kneading of B with C, and further kneading of the B-C blends with A. Thus, 10418 parts di-Me terephthalate was polycondensed with di-Me 5-sodiosulfoisophthalate 1865, ethylene glycol 7440, and **polyethylene glycol** (Mn 2000) 26400 parts at 200° in the presence of (BuO)₄Ti, mixed with 189 parts 1,3,5-trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene, reacted with 154 parts dipheynl carbonate at 230°, and mixed with 189 parts 2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-(hexyloxy)phenol (Tinuvin 1577ff) to give a polyether-polyester of η 3.92, 10 parts of which was kneaded with 89 parts PBT (TRB HT) and 1 part Na dodecylbenzenesulfonate, pelletized, and injection molded to give a 2-mm-thick specimen showing surface resistivity (logR) 11.6 initially and 11.4 after washing with water and excellent lightfastness.

IT 24968-12-5, Poly(butylene terephthalate)
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (TRB-HT; **antistatic** poly(butylene terephthalate)
 compns. contg. sulfonated **polyester-polyethers**)
 RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IT 26062-94-2, Poly(butylene terephthalate)
 RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

(antistatic polymer blends of PBT and sulfonyl-contg.
polyester-polyoxyalkylenes)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4

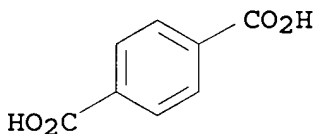
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02

ICS C08K005-00; C08K005-13; C08K005-3492; C09K003-00; C09K003-16;
C07D251-24

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

ST **polybutylene terephthalate antistatic**polyether **polyester** blend; sulfonated polyoxyalkylene**polyester** PBT blend; hindered phenol triazine blended**antistatic** PBT; **polyethylene glycol**sodiosulfoisophthalate **polyester** blended PBTIT **Sulfonic acids, uses**

RL: MOA (Modifier or additive use); USES (Uses)

(alkyl derivs., surfactants; **antistatic** poly(butylene
terephthalate) compns. contg. sulfonated **polyester**
-polyethers)

IT **Antistatic agents**

Surfactants

(antistatic poly(butylene terephthalate) compns. contg.

sulfonated **polyester-polyethers**)IT **Polyesters, uses**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)

(arom.; **antistatic** poly(butylene terephthalate) compns.

- contg. sulfonated polyester-polyethers)
- IT Antioxidants
(hindered phenols; antistatic polymer blends of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT Polyoxyalkylenes, uses
Polyoxyalkylenes, uses
Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(polycarbonate-polyester-, antistatic agents;
antistatic poly(butylene terephthalate) compns. contg.
sulfonated polyester-polyethers)
- IT Polyesters, uses
Polyesters, uses
Polyesters, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(polycarbonate-polyoxyalkylene-, antistatic agents;
antistatic poly(butylene terephthalate) compns. contg.
sulfonated polyester-polyethers)
- IT Polycarbonates, uses
Polycarbonates, uses
Polycarbonates, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(polyester-polyoxyalkylene-, antistatic
agents; antistatic poly(butylene terephthalate) compns.
contg. sulfonated polyester-polyethers)
- IT Light stabilizers
(triazine deriv.; antistatic polymer blends of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT 24968-12-5, Poly(butylene terephthalate)
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(TRB-HT; antistatic poly(butylene terephthalate)
compns. contg. sulfonated polyester-polyethers)
- IT 1709-70-2, 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene
RL: MOA (Modifier or additive use); USES (Uses)
(antioxidant; antistatic polymer blends of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT 296798-06-6P, Dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-diphenyl carbonate-ethylene glycol-polyethylene glycol copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(antistatic agents; antistatic polymer blends
of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT 26062-94-2, Poly(butylene terephthalate)
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(antistatic polymer blends of PBT and sulfonyl-contg.

polyester-polyoxyalkylenes)
IT 108-95-2D, Phenol, deriv., uses
RL: MOA (Modifier or additive use); USES (Uses)
(hindered, antioxidant; **antistatic** polymer blends of
PBT and sulfonyl-contg. **polyester-polyoxyalkylenes)**
IT 290-87-9D, 1,3,5-Triazine, deriv. 147315-50-2, Tinuvin 1577ff
RL: MOA (Modifier or additive use); USES (Uses)
(light stabilizers; **antistatic** polymer blends of PBT
and sulfonyl-contg. **polyester-polyoxyalkylenes)**
IT 25155-30-0, Sodium dodecylbenzenesulfonate
RL: MOA (Modifier or additive use); USES (Uses)
(surfactant; **antistatic** polymer blends of PBT and
sulfonyl-contg. **polyester-polyoxyalkylenes)**
IT 98-11-3D, **Benzenesulfonic acid**, alkyl esters,
uses
RL: MOA (Modifier or additive use); USES (Uses)
(surfactants; **antistatic** poly(butylene terephthalate)
compns. contg. sulfonated **polyester-polyethers)**

L75 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:214855 HCAPLUS
DOCUMENT NUMBER: 132:251902
TITLE: Rubber-modified styrene graft copolymer
compositions with excellent
antistaticity and impact resistance
INVENTOR(S): Shiota, Koji; Miura, Norikiyo
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2000095921	A2	20000404	JP 1998-267909	199809 22
PRIORITY APPLN. INFO.:				JP 1998-267909 199809 22

AB The compns., useful for elec. appliances, automotive parts,
packaging materials, etc., contain rubber-modified styrene polymers,
1-25% (on the total wt.) copolymers of styrene and acid group-contg.
vinyl compds., and **antistatic** agents selected from
sulfonic acid-free poly(ether-esters) and
poly(ether-ester-amides).
Thus, a test piece prepd. from a 84:6:10 mixt. of Toyolac 500 (ABS
resin), styrene-methacrylic acid copolymer, and a reaction product

of polyoxyethylene, di-Me terephthalate, and ethylene glycol showed surface resistivity $8 + 10^{12} \Omega/\text{square}$ after washing and falling-wt. impact, test 39 J.

- IC ICM C08L055-02
ICS C08K005-10
- CC 37-6 (Plastics Manufacture and Processing)
- ST **antistaticity** rubber modification styrene graft copolymer;
impact resistance ABS polyether **polyester** compatibility;
compatibilizer styrene methacrylic acid copolymer
- IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(**polyamide-polyester-**, block,
antistatic agent; rubber-modified styrene
copolymer-polyether ester blends contg. compatibilizers with good
antistaticity and impact resistance)
- IT **Polyesters**, preparation
Polyesters, preparation
Polyesters, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(**polyamide-polyoxyalkylene-**, block, **antistatic**
agent; rubber-modified styrene copolymer-polyether ester blends
contg. compatibilizers with good **antistaticity** and
impact resistance)
- IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(**polyester-**, block, **antistatic** agent;
rubber-modified styrene copolymer-polyether ester blends contg.
compatibilizers with good **antistaticity** and impact
resistance)
- IT **Polyamides**, preparation
Polyamides, preparation
Polyamides, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(**polyester-polyoxyalkylene-**, block, **antistatic**
agent; rubber-modified styrene copolymer-polyether ester blends
contg. compatibilizers with good **antistaticity** and
impact resistance)
- IT **Polyesters**, preparation
Polyesters, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(**polyoxyalkylene-**, block, **antistatic** agent;
rubber-modified styrene copolymer-polyether ester blends contg.
compatibilizers with good **antistaticity** and impact
resistance)

- IT **Antistatic agents**
Impact-resistant materials
Polymer blend compatibilizers
(rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT **Polymer blends**
RL: PRP (Properties)
(rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT 106343-12-8P, Dimethyl terephthalate-ethylene glycol-**polyethylene** glycol block copolymer 113264-09-8P, ω -Aminodecanoic acid-dodecanedioic acid- **polyethylene** glycol block copolymer 114650-72-5P, Adipic acid-hexamethylenediamine-**polyethylene** glycol block copolymer 262846-41-3P, Dimethyl terephthalate-ethoxylated bisphenol A-ethylene glycol block copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(**antistatic** agent; rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT 9010-92-8, Methacrylic acid-styrene copolymer
RL: MOA (Modifier or additive use); USES (Uses)
(compatibilizer; rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT 9003-56-9, Toyolac 500
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)

L75 ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:180987 HCAPLUS

DOCUMENT NUMBER: 132:223587

TITLE: Highly **antistatic** laminates and their moldings with good water resistance

INVENTOR(S): Kobase, Shigetsugu; Abe, Kazuhiro; Harada, Mitsuhiro; Kitagawa, Hironobu

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

JP 2000079662	A2	20000321	JP 1999-174502	199906 21
KR 2000006322	A	20000125	KR 1999-23258	199906 21
CN 1243062	A	20000202	CN 1999-119201	199906 22
SG 92643	A1	20021119	SG 1999-3090	199906 22
PRIORITY APPLN. INFO.:			JP 1998-174748	A 199806 22

AB The laminates, useful for carrier tapes or trays for electronic parts, cushioning packaging materials, IC cards, etc., contain cured elec. conductive layers contg. elec. conductive polymers and surfactants. Thus, aq. i-PrOH soln. of poly(2-aminoanisoole-4-sulfonic acid), aq. i-PrOH soln. of 48:48:4:80:20 di-Me terephthalate-di-Me isophthalate-Na 5-sulfoisophthalate-ethylene glycol-diethylene glycol copolymer, Emulgen 810 (nonionic surfactant), and aq. dispersion of poly(vinyl alc.)/Elastron BN 69 (polyisocyanate) were mixed and applied to a PET sheet to give a sheet showing water- and moisture-resistant resistivity, light transmittance 88%, haze 2.8, good blocking resistance, and no defects.

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9
25038-59-9, Poly(ethylene terephthalate), uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(base sheet; highly antistatic laminates and their moldings with good water resistance)

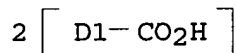
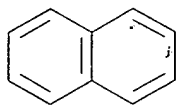
RN 9020-32-0 HCAPLUS
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

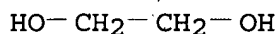
CMF C12 H8 O4

CCI IDS



CM 2

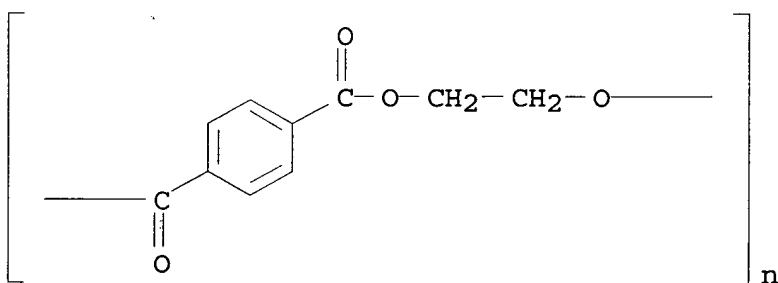
CRN 107-21-1
CMF C2 H6 O2



RN 9020-73-9 HCAPLUS
CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



IC ICM B32B027-18
ICS B65D081-02
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
ST **antistatic** laminate conductive polymer layer surfactant;
sulfo polyaniline **polyester antistatic** laminate
conductive layer; water resistant **antistatic** laminate
conductive polymer; electronic part tray **antistatic**
laminate; carrier tape electronic part **antistatic**
laminate; cushioning packaging material **antistatic**

laminate; IC card **antistatic** laminate water resistance

IT Coating materials
(**antistatic**; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyesters**, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(base sheet; highly **antistatic** laminates and their moldings with good water resistance)

IT Polycarbonates, uses
Polyesters, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(base sheets; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyolefins**
Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(base sheets; highly **antistatic** laminates and their moldings with good water resistance)

IT Integrated circuits
(cards; highly **antistatic** laminates and their moldings with good water resistance)

IT Polyanilines
RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(conductive polymers; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyesters**, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(graft, conductive layers; highly **antistatic** laminates and their moldings with good water resistance)

IT Cushions
Electronic packages
Water-resistant materials
(highly **antistatic** laminates and their moldings with good water resistance)

IT Laminated plastics, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(highly **antistatic** laminates and their moldings with good water resistance)

IT Surfactants
(in conductive layers; highly **antistatic** laminates and their moldings with good water resistance)

IT Conducting polymers
(sulfo-contg. polyanilines; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyesters**, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(sulfo-contg., conductive layers; highly **antistatic** laminates and their moldings with good water resistance)

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9
25038-59-9, Poly(ethylene terephthalate), uses 26780-49-4,
Ethylene glycol-neopentyl glycol-terephthalic acid copolymer
73714-40-6, Cyclohexanedimethanol-ethylene glycol-terephthalic acid
copolymer

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(base sheet; highly **antistatic** laminates and their
moldings with good water resistance)

IT 82200-41-7P, Diethylene glycol-dimethyl isophthalate-dimethyl
terephthalate-ethylene glycol-sodium 5-sulfoisophthalate copolymer
261353-69-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(conductive layer; highly **antistatic** laminates and
their moldings with good water resistance)

IT 167860-86-8P, 2-Aminoanisoole-4-sulfonic acid
homopolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(conductive polymer; highly **antistatic** laminates and
their moldings with good water resistance)

IT 56-81-5D, Glycerol, polyglycidyl ethers

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agents for conductive polymer layer; highly
antistatic laminates and their moldings with good water
resistance)

IT 261353-70-2 261353-71-3 261353-72-4

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(cured conductive layer; highly **antistatic** laminates
and their moldings with good water resistance)

IT 9036-19-5, Emulgen 810 52550-45-5, Megafac F 142D

RL: MOA (Modifier or additive use); USES (Uses)

(surfactant in conductive layer; highly **antistatic**
laminates and their moldings with good water resistance)

L75 ANSWER 28 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:113031 HCAPLUS

DOCUMENT NUMBER: 132:144370

TITLE: **Antistatic** layer for imaging element

INVENTOR(S): Majumdar, Debasis; Savage, Dennis J.; Eichorst,
Dennis J.; Blanton, Thomas N.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S., 12 pp.

DOCUMENT TYPE: CODEN: USXXAM
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 English
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6025119	A	20000215	US 1998-216187	19981218
EP 1020762	A2	20000719	EP 1999-204144	19991206
EP 1020762	A3	20000906		
EP 1020762	B1	20030730		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:		US 1998-216187	A	19981218

AB The present invention provides an imaging element which includes a support, an image-forming layer superposed on the support, and an elec. conductive layer superposed on the support. The elec. conductive layer includes a layered siliceous material, an elec. conducting polymer that can intercalate inside or exfoliate the layered siliceous material, and a film-forming binder.

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9020-32-0, Poly(ethylene naphthalate) 9020-73-9 25038-59-9, Poly(ethylene terephthalate), uses

RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with antistatic layers superposed on supports of)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

$\text{H}_2\text{C}=\text{CH}_2$

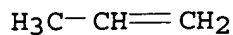
RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



RN 9020-32-0 HCAPLUS

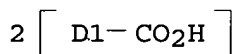
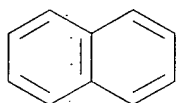
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

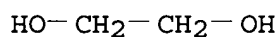
CCI IDS



CM 2

CRN 107-21-1

CMF C2 H6 O2



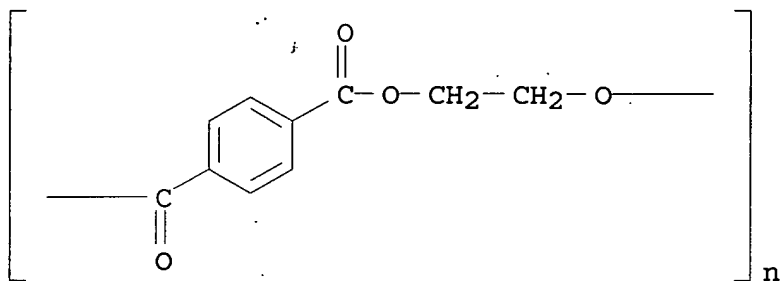
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM G03C001-89
 INCL 430529000
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST photog film **antistatic** layer layered siliceous material
 IT Photographic films
 (**antistatic** layers contg. layered siliceous materials and elec. conducting polymers for)
 IT Smectite-group minerals
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. films with **antistatic** layers contg. elec. conducting polymers and)
 IT Polycarbonates, uses
 Polyesters, uses
 Polyvinyl acetals
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. films with **antistatic** layers superposed on supports of)
 IT Clays, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (phyllosilicate; photog. films with **antistatic** layers contg. elec. conducting polymers and)
 IT 53320-86-8, Laponite
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. films with **antistatic** layers contg. elec. conducting polymers and)
 IT 30604-81-0, Polypyrrole 101051-94-9, Polypyrrole compd. with poly(**styrenesulfonic acid**)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. films with **antistatic** layers contg. layered siliceous materials and)
 IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate 9020-32-0, Poly(ethylene naphthalate) 9020-73-9 25038-59-9, Poly(ethylene terephthalate), uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. films with **antistatic** layers superposed on supports of)

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE

FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L75 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:111109 HCAPLUS
DOCUMENT NUMBER: 132:152992
TITLE: Multilayer-laminated thermoplastic sheets having
good **antistatic** property in low
humidity environment
INVENTOR(S): Kobase, Shigeji; Abe, Kazuhiro; Harada,
Mitsuhiro; Kitagawa, Hironobu
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2000043201	A2	20000215	JP 1998-219117	199808 03
PRIORITY APPLN. INFO.:			JP 1998-219117	199808 03

AB The laminated sheets have charge-controlling layers contg. (a) polymers with hydrophilic groups, (b) fatty acid metal salts and/or (c) inert particles, (d) surfactants, and (e) elec.-cond. polymers on at least one side of thermoplastic sheets. The sheets have good **antistatic** property while keeping good transparency, lubricity, and printability and are esp. suitable for carrier tapes, cover tapes, and containers for elec. materials. Thus, a 2%-solid soln. of sulfonated 2-aminoanisole-2-sulfonic acid homopolymer (I) was blended with a 8%-solid soln. of 48:48:4:80:20 (mol%) di-Me terephthalate-dimethyl isophthalate-5-sodiosulfoisophthalic acid-ethylene glycol-diethylene glycol copolymer (II) at wt. ratio 20:80, then further mixed with Na montanate (III) at wt. ratio III:I = 8:100 and III:II = 20:100 to give a coating. An undrawn poly(ethylene terephthalate) film was coated with the coating (0.1 g/m²) and dried at 70° to give test pieces having haze 2.0%, friction coeff. 0.41 μ s, good antiblocking, and good UV-curable ink printability.

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9
25038-59-9, Poly(ethylene terephthalate), uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(substrates; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)

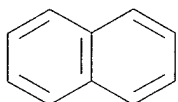
RN 9020-32-0 HCAPLUS
 CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS



2 [D1- CO₂H]

CM 2

CRN 107-21-1

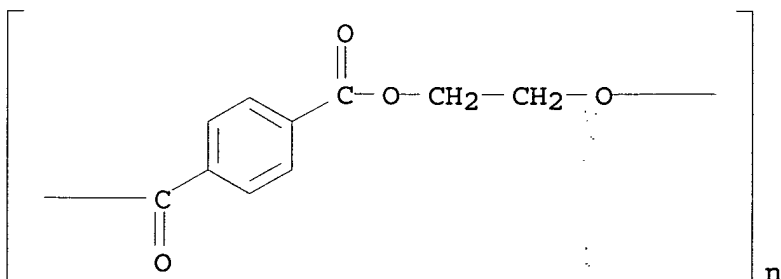
CMF C2 H6 O2

HO-CH₂-CH₂-OH

RN 9020-73-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM B32B027-00
ICS B32B007-02; C08F283-02; C08G063-16; C08G073-00; C08K005-098;
C08K007-16; C08L101-12; C08L101-14

CC 38-3 (Plastics Fabrication and Uses)

ST thermoplastic sheet laminate **antistatic** coating
transparency; sulfonated polyaniline **antistatic** coating
thermoplastic sheet laminate; **polyethylene**
terephthalate sheet **antistatic** coating
transparency; **sulfonic acid polyester**
antistatic coating transparency; aminoanisoole homopolymer
antistatic coating thermoplastic sheet

IT **Polyesters, uses**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(acrylic, graft, coatings, blends with sulfonated
aminoanisoole**sulfonic acid** homopolymer;
multilayer-laminated, transparent thermoplastic sheets with
antistatic coatings)

IT Coating materials
(**antistatic**; multilayer-laminated, transparent
thermoplastic sheets with **antistatic** coatings)

IT Polyanilines
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(coatings, blends with hydrophilic polymers; multilayer-
laminated, transparent thermoplastic sheets with
antistatic coatings)

IT Fatty acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(metal salts; multilayer-laminated, transparent thermoplastic
sheets with **antistatic** coatings)

IT Laminated plastic films
(multilayer-laminated, transparent thermoplastic sheets with
antistatic coatings)

IT **Polyesters, uses**
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(substrates; multilayer-laminated, transparent thermoplastic
sheets with **antistatic** coatings)

IT **Polyesters, uses**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(**sulfonic acid** group-contg., blends with
sulfonated **aminoanisoole****sulfonic acid**
homopolymer; multilayer-laminated, transparent thermoplastic
sheets with **antistatic** coatings)

IT 167860-86-8DP, 2-Aminoanisoole-4-**sulfonic acid**
homopolymer, sulfonated
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

- (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coatings, blends with **polyesters** with **sulfonic acid** groups; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 82200-41-7P, Diethylene glycol-dimethyl isophthalate-dimethyl terephthalate-ethylene glycol-5-sodiosulfoisophthalic acid copolymer
197455-24-6P, Acrylic acid-dimethyl isophthalate-dimethyl terephthalate-ethyl acrylate-ethylene glycol-fumaric acid-neopentyl glycol graft copolymer triethylamine salt
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coatings, blends with sulfonated **aminoanisolesulfonic acid** homopolymer; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 9003-53-6, Polystyrene
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinked, microspheres; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 7631-86-9, Silica, uses
RL: MOA (Modifier or additive use); USES (Uses)
(microspheres; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 25728-82-9, Sodium montanate
RL: MOA (Modifier or additive use); USES (Uses)
(multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9
25038-59-9, Poly(ethylene terephthalate), uses 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer
73714-40-6, Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(substrates; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)

L75 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:37817 HCAPLUS

DOCUMENT NUMBER: 132:94376

TITLE: Electrically conductive **polyester**
-based sheet for carrier tape in packaging of
electronic device

INVENTOR(S): Yonezawa, Masateru; Matsui, Ichiro

PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000015764	A2	20000118	JP 1998-183061	19980629
JP 3354871	B2	20021209	JP 1998-183061	19980629

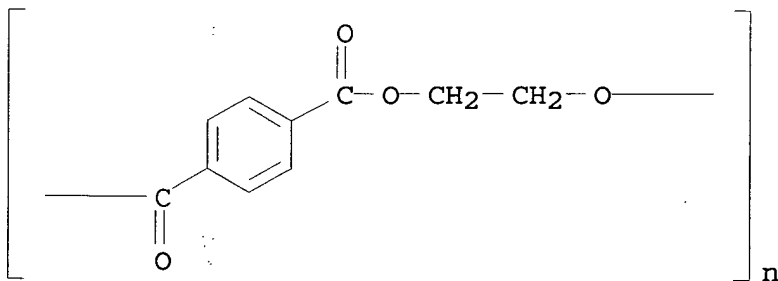
PRIORITY APPLN. INFO.: JP 1998-183061

AB The sheet consists of a substrate made of an **antistatic** satd. **polyester** compn. and an elec. conductive resin coating contg. carbon black on 1 side of the substrate, wherein the surface sp. resistivity on the coating side is from $\geq 1 + 10^4 \Omega$ to $< 1 + 10^8 \Omega$ and that on the other side is from $\geq 1 + 10^4 \Omega$ to $< 1 + 10^{14} \Omega$. The sheet is used as a carrier tape in electronic device packaging and the package consists of electronic parts set in cavities on the carrier tape and sealed with a cover tape. Thus, 100:12 mixt. of PET (I; MA 530H) and **antistatic** agent (Pelestat 6321) and I were coextruded to give a double layer substrate, which was gravure-coated with 30:6:64 mixt. of vinyl acetate-vinyl chloride copolymer, carbon black, and mixed solvent contg. other additives to give the sheet showing good folding strength, i.e., prevention of cracking in ≥ 501 repeated foldings.

IT 25038-59-9, PET (**polyester**), uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (MA 530H; **antistatic** satd. **polyester** sheet with elec. conductive coating contg. carbon black for carrier tape for electronic device packaging)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)

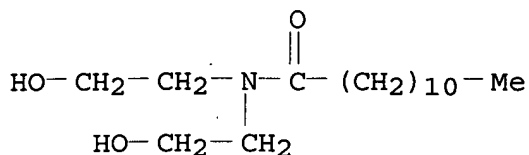


IT 120-40-1
 RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic agent; **antistatic** satd. **polyester** sheet with elec. conductive coating contg.)

carbon black for carrier tape for electronic device packaging)

RN 120-40-1 HCAPLUS

CN Dodecanamide, N,N-bis(2-hydroxyethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



IT 24968-12-5, Novadur 5010 26062-94-2, Butylene glycol-terephthalic acid copolymer

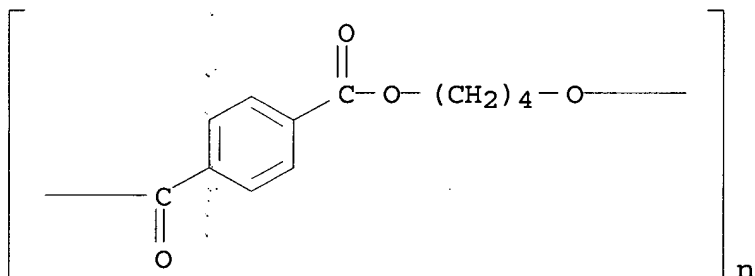
RL: TEM (Technical or engineered material use); USES (Uses)

(antistatic satd. polyester sheet with elec.

conductive coating contg. carbon black for carrier tape for electronic device packaging)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



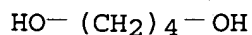
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

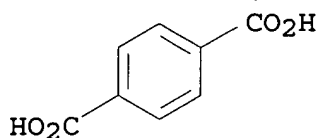
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM B32B027-36
ICS B32B027-18; H01B005-14

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76

ST elec conductive **polyester** sheet carrier tape; carbon black
elec conductor coating; satd **polyester antistatic**
sheet elec conductive; PET sheet elec conductive coating; vinyl
acetate chloride copolymer coating; electronic device packaging
antistatic carrier tape

IT **Polyesters**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(MA 530H; **antistatic** satd. **polyester** sheet
with elec. conductive coating contg. carbon black for carrier
tape for electronic device packaging)

IT Electronic packages
(**antistatic** satd. **polyester** sheet with elec.
conductive coating contg. carbon black for carrier tape for
electronic device packaging)

IT **Polyesters**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**antistatic** satd. **polyester** sheet with elec.
conductive coating contg. carbon black for carrier tape for
electronic device packaging)

IT Coating materials
(**antistatic**; on **antistatic** satd.
polyester sheet with elec. conductive coating contg.
carbon black for carrier tape for electronic device packaging)

IT Coating materials
(elec. conductive; **antistatic** satd. **polyester**
sheet with elec. conductive coating contg. carbon black for
carrier tape for electronic device packaging)

IT Carbon black, uses
RL: MOA (Modifier or additive use); USES (Uses)
(elec. conductor; **antistatic** satd. **polyester**
sheet with elec. conductive coating contg. carbon black for
carrier tape for electronic device packaging)

IT Synthetic rubber, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**polyamide-polyester-polyether**, Pelestat
6321; **antistatic** agent; **antistatic** satd.
polyester sheet with elec. conductive coating contg.
carbon black for carrier tape for electronic device packaging)

IT **Polyester** rubber

RL: MOA (Modifier or additive use); USES (Uses)
 (polyamide-polyether-, Pelestat 6321;
 antistatic agent; antistatic satd.
 polyester sheet with elec. conductive coating contg.
 carbon black for carrier tape for electronic device packaging)

IT 25038-59-9, PET (polyester), uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (MA 530H; antistatic satd. polyester sheet
 with elec. conductive coating contg. carbon black for carrier
 tape for electronic device packaging)

IT 120-40-1 173720-87-1, Chemistat 3100
 RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic agent; antistatic satd.
 polyester sheet with elec. conductive coating contg.
 carbon black for carrier tape for electronic device packaging)

IT 24968-12-5, Novadur 5010 25640-14-6, PETG 6763
 26062-94-2, Butylene glycol-terephthalic acid copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (antistatic satd. polyester sheet with elec.
 conductive coating contg. carbon black for carrier tape for
 electronic device packaging)

IT 9003-22-9, Vinyl acetate-vinyl chloride copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binder in coating; antistatic satd. polyester
 sheet with elec. conductive coating contg. carbon black for
 carrier tape for electronic device packaging)

L75 ANSWER 31 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:565242 HCAPLUS
 DOCUMENT NUMBER: 131:200800
 TITLE: Thermoplastic polyester compositions
 with excellent antibacterial properties
 INVENTOR(S): Oji, Kazuyoshi
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11241007	A2	19990907	JP 1998-45215	199802 26
PRIORITY APPLN. INFO.:			JP 1998-45215	199802 26

AB Title compns. contain Ag-contg. H2O-sol. glass powders. Thus, 95

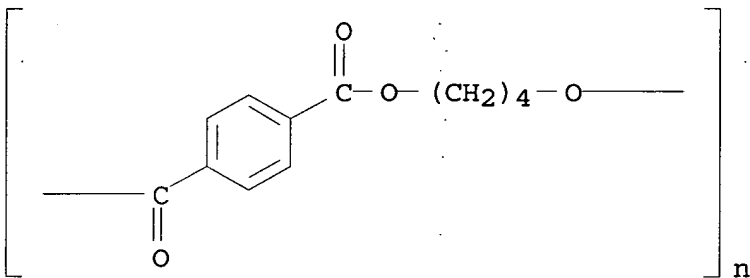
parts poly(butylene terephthalate) and 3 parts Amorclean P 10 (Ag-contg. H₂O-sol. glass powders) were melt kneaded, pelletized, and injection molded to give test pieces showing excellent bactericidal effect against Escherichia coli and Staphylococcus aureus without deterioration of its moldability and mech. properties.

IT 24968-12-5, Poly(butylene terephthalate), sru
26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

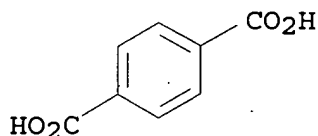
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC ICM C08L067-02
ICS C08K003-22; C08K005-42; C08K005-52
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 5, 39
- ST silver glass antibacterial **polyester**
- IT **Sulfonic acids, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(C14-17-sec-alkanesulfonic, sodium salts, **antistatic** agents, Hostapur SAS 93; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT Antibacterial agents
Antistatic agents
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT Glass powders
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT **Polyesters, properties**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT **Polyester rubber**
Synthetic rubber, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(butanediol-di-Me terephthalate-polytetramethylene glycol, block, block; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT **Polyester rubber**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(butanediol-di-Me terephthalate-polytetramethylene glycol, block; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT Glass, uses
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(silver-contg., Amorclean P 10; antibacterial **polyesters**

- contg. silver-contg. water-sol. glass)
- IT 24968-12-5, Poly(butylene terephthalate), sru
26062-94-2
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 98-11-3D, **Benzenesulfonic acid**, alkyl derivs., salts, uses 7664-38-2D, Phosphoric acid, alkyl esters, alkali metal salts, uses 7664-93-9D, Sulfuric acid, alkyl esters, alkali metal salts, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**antistatic agents**; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 7440-22-4, Silver, uses
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(glass contg.; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 1303-86-2, Boron oxide (b2o3), uses 1304-28-5, Barium oxide, uses 1305-78-8, Calcium oxide (cao), uses 1309-48-4, Magnesium oxide, uses 1313-59-3, Sodium oxide (na2o), uses 1314-13-2, Zinc oxide, uses 1314-56-3, Phosphorus oxide (p2o5), uses 1344-28-1, Aluminum oxide (Al2O3), uses 7631-86-9, Silica, uses 12136-45-7, Potassium oxide (k2o), uses 13463-67-7, Titania, uses 20667-12-3, Silver oxide
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(glass contg.; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 106465-17-2, 1,4-Butanediol-dimethyl terephthalate-polytetramethylene glycol block copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(rubber; antibacterial **polyesters** contg. silver-contg. water-sol. glass)

L75 ANSWER 32 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:463333 HCAPLUS

DOCUMENT NUMBER: 131:130679

TITLE: **Poly(ether-ester-amides)**, **antistatic agents**, and thermoplastic resin compositions containing them

INVENTOR(S): Omae, Tadayuki; Kitano, Takafumi; Azumano, Tetsuji; Takeuchi, Shuji

PATENT ASSIGNEE(S): Arakawa Chemical Industries, Ltd., Japan; Marubishi Oil Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11199667	A2	19990727	JP 1998-5943	19980114
PRIORITY APPLN. INFO.:				19980114

- AB The **poly(ether-ester-amides)** showing reduced viscosity (η ; 0.5% HCO₂H soln., 25°) 1-4 are obtained by reaction of (A) amide-forming components selected from aminocarboxylic acids, lactams, and diamine-dicarboxylic acid salts, (B) polyoxyalkylene glycols, (C) dicarboxylic acids, and (D) compds. having ≥ 3 functional groups selected from OH, CO₂H, and NH₂. Molded products obtained by injection molding or extrusion molding of the title compns. are also claimed. Thus, 10 parts of a polymer (η 1.98, yellowness index 23, m.p. 130°), prepd. by polymn. of caprolactam 2022.9, adipic acid 350.4, **polyethylene glycol** (no.-av. mol. wt. 300) 720.0, and polyoxyethylene glycerin ether 22.3 g in the presence of LiCl, Zr carbonate, and Irganox 1010, was mixed with 90 parts PMMA (Sumipex HT 013E) and antioxidants, melt-kneaded, pelletized, and injection molded to give a test piece showing haze 3.9%, tensile strength 394 g/cm², flexural modulus 21,400 kg/cm², and good **antistatic** properties.
- IC ICM C08G069-44
 ICS C08K003-16; C08K005-42; C08L025-04; C08L033-04; C08L101-00; C08L077-12
- CC 37-6 (Plastics Manufacture and Processing)
- ST polyether **polyester polyamide** blend yellowing resistance; **antistatic** PMMA polyether **polyester polyamide** blend; polyoxyethylene **polyester polyamide antistatic agent**
- IT Sulfonic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (alkanesulfonic, sodium salts; yellowing-resistant **poly(ether-ester-amide)** antistatic agents for thermoplastic resins)
- IT Polyoxyalkylenes, preparation
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
 (polyamide-polyester-; yellowing-resistant **poly(ether-ester-amide)** antistatic agents for thermoplastic resins)
- IT Polyesters, preparation

- RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PRP (Properties); PREP (Preparation); USES (Uses)
 (polyamide-polyoxyalkylene-; yellowing-resistant
 poly(ether-ester-amide)
 antistatic agents for thermoplastic resins)
- IT Polyamides, preparation
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PRP (Properties); PREP (Preparation); USES (Uses)
 (polyester-polyoxyalkylene-; yellowing-resistant
 poly(ether-ester-amide)
 antistatic agents for thermoplastic resins)
- IT Impact-resistant materials
 (polystyrene; yellowing-resistant poly(ether-
 ester-amide) antistatic agents for
 thermoplastic resins)
- IT Antistatic agents
 Yellowing prevention
 (yellowing-resistant poly(ether-ester
 -amide) antistatic agents for thermoplastic
 resins)
- IT Alkaline earth halides
 RL: MOA (Modifier or additive use); USES (Uses)
 (yellowing-resistant poly(ether-ester
 -amide) antistatic agents for thermoplastic
 resins)
- IT Polyoxyphenylenes
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (yellowing-resistant poly(ether-ester
 -amide) antistatic agents for thermoplastic
 resins)
- IT 9010-88-2
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (Sumipex HT 013E, Sumipex EX; yellowing-resistant poly(
 ether-ester-amide) antistatic
 agents for thermoplastic resins)
- IT 100-42-5D, Styrene, polymers
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (impact-resistant; yellowing-resistant poly(
 ether-ester-amide) antistatic
 agents for thermoplastic resins)
- IT 232944-11-5P, Adipic acid-caprolactam-polyethylene
 glycol-polyoxyethylene glycerin ether copolymer 232944-13-7P,
 Adipic acid-caprolactam-polyethylene glycol-trimellitic
 anhydride copolymer 232944-16-0P, Adipic acid-caprolactam-glycerin-
 polyethylene glycol copolymer 232944-18-2P,
 Caprolactam-glycerin-polyethylene glycol-terephthalic acid
 copolymer 234781-31-8P, Adipic acid-bisphenol A ethylene oxide
 adduct-caprolactam-polyoxyethylene glycerin ether copolymer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PRP (Properties); PREP (Preparation); USES (Uses)
 (yellowing-resistant poly(ether-ester
 -amide) antistatic agents for thermoplastic

resins)
IT 7447-41-8, Lithium chloride, uses 25155-30-0 211059-20-0, Denon
V 51
RL: MOA (Modifier or additive use); USES (Uses)
(yellowing-resistant poly(ether-ester
-amide) antistatic agents for thermoplastic
resins)
IT 211059-01-7, Artlex HT 4500 234781-30-7, JPS-H 554
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(yellowing-resistant poly(ether-ester
-amide) antistatic agents for thermoplastic
resins)

L75 ANSWER 33 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:81349 HCAPLUS

DOCUMENT NUMBER: 130:183255

TITLE: Compatible antistatic agents for use
in transparent plastic compositions and the
plastic compositions

INVENTOR(S): Kawaharada, Yukihiro; Yamazaki, Tetsuya

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 11029763	A2	19990202	JP 1997-203022	199707 29
				199705 16

PRIORITY APPLN. INFO.: JP 1997-126969 A

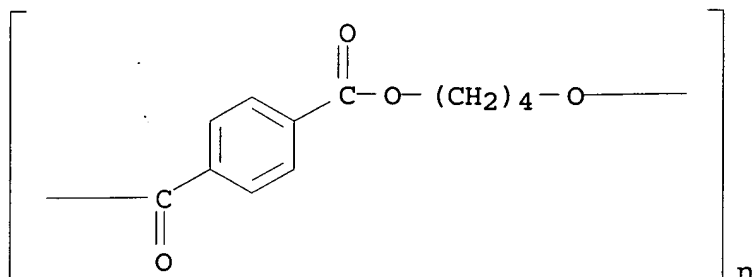
AB The agents are polyether-esters bearing org. sulfonic
acid salt groups and having melt viscosity
(η_{melt} ; at 280°) of 50-5000 Pa·s. Thus, an
antistatic agent with η_{melt} 274 Pa·s was prepd.
from a polyethylene glycol (Mn 2000), di-Me terephthalate,
di-Me sulfoisophthalate Ba salt and ethylene glycol. Blending 90
parts Iupilon S 3000 (polycarbonate) with 10 parts the agent at
270°, pelletizing and injection molding gave test pieces with
surface resistivity 6x10¹², 6x10¹² and 6x10¹² initially, after
washing and after 3 mo., resp., and transparency 72%.

IT 24968-12-5 26062-94-2, PBT monomer based
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(compatible antistatic agents for use in transparent

plastic compns. and plastic compns.)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4

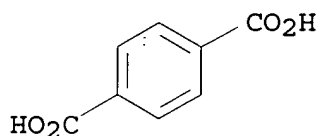
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C09K003-16

ICS C08L025-04; C08L067-02; C08L069-00; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

ST transparent plastic antistatic agent polyether
polyester sulfonate

IT Antistatic agents

Transparent materials

(compatible antistatic agents for use in transparent
plastic compns. and plastic compns.)

- IT Polycarbonates, properties
Polyesters, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(polyester-, sulfonic acid salt group-contg.; compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT Polyesters, preparation
Polyesters, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-, sulfonic acid salt group-contg.; compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT 204134-07-6P, Bisphenol A ethoxylate-dimethyl sulfoisophthalate calcium salt-dimethyl terephthalate-ethylene glycol copolymer
220654-63-7P, Dimethyl sulfoisophthalate barium salt-dimethyl terephthalate-ethylene glycol-polyethylene glycol block copolymer
220654-66-0P 220654-71-7P, Dimethyl sulfoisophthalate zinc salt-dimethyl terephthalate-ethylene glycol-polyethylene glycol block copolymer
220654-74-0P 220654-76-2P 220654-79-5P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(antistatic agents; compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT 9003-53-6 9010-92-8, Methacrylic acid-styrene copolymer
24936-68-3, properties 24968-12-5 25037-45-0, Bisphenol A-carbonic acid copolymer 26062-94-2, PBT monomer based
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(compatible antistatic agents for use in transparent plastic compns. and plastic compns.)

L75 ANSWER 34 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:564141 HCAPLUS
DOCUMENT NUMBER: 129:182065
TITLE: Laminatable backing substrates containing paper
desizing agents for simulated
photographic-quality prints
INVENTOR(S): Malhotra, Shadi L.
PATENT ASSIGNEE(S): Xerox Corp., USA
SOURCE: U.S., 24 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5795696	A	19980818	US 1996-720656	19961002

PRIORITY APPLN. INFO.: US 1996-720656
 19961002

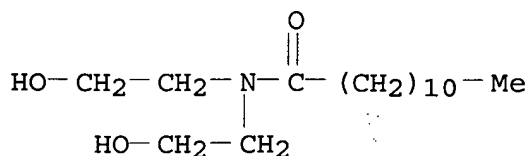
AB Disclosed is a method of creating simulated photog.-quality prints using non-photog. imaging, said method comprising (a) providing a coated transparent substrate having a wrong reading toner image formed thereon using a non-photog. imaging process, (b) providing one surface of a backing substrate with a first coating comprising a polymeric adhesive binder having a glass transition temp. less than 55°, an **antistatic** agent, a lightfastness-inducing agent, and an optional filler, (c) providing said one surface of said backing substrate with a second coating in contact with said first coating wherein said second coating comprises a hydrophilic polymer having a m.p. of greater than 50°, and a paper desizing agent material having a m.p. of less than 75°, (d) providing a coating on another surface of said protective member opposite said one surface which is luminescent, **antistatic**, scuff resistant, and lightfast, and (e) adhering said substrates to each other by the application of heat and pressure.

IT 120-40-1, Lauric diethanolamide
 9002-88-4 9010-79-1, Ethylene-propylene copolymer

RL: TEM (Technical or engineered material use); USES (Uses)
 (laminatable backing substrates for simulated photog.-quality print prepn. contg.)

RN 120-40-1 HCAPLUS

CN Dodecanamide, N,N-bis(2-hydroxyethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)

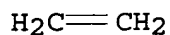


RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

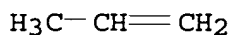
CRN 74-85-1
CMF C2 H4



RN 9010-79-1 HCAPLUS
CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)

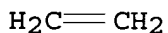
CM 1

CRN 115-07-1
CMF C3 H6



CM 2

CRN 74-85-1
CMF C2 H4



IT 9003-07-0, Polypropylene 9020-32-0,
Polyethylene naphthalate 9020-73-9
RL: TEM (Technical or engineered material use); USES (Uses)
(transparent supports for simulated photog.-quality prints with
laminatable backing substrates contg. paper desizing agents)
RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

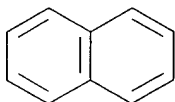
CRN 115-07-1
CMF C3 H6



RN 9020-32-0 HCAPLUS
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 28604-87-7
CMF C12 H8 O4
CCI IDS



2 [D1-CO₂H]

CM 2

CRN 107-21-1
CMF C2 H6 O2

HO-CH₂-CH₂-OH

RN 9020-73-9 HCAPLUS
CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM G03G013-16

INCL 430124000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT Aminoplasts

Polyamides, uses

Polyoxyalkylenes, uses

Polyvinyl butyrals

RL: TEM (Technical or engineered material use); USES (Uses)

(laminatable backing substrates for simulated photog.-quality
print prepn. contg.)

IT Polycarbonates, uses

Polyesters, uses

Polyimides, uses

Polysulfones, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(transparent supports for simulated photog.-quality prints with
laminatable backing substrates contg. paper desizing agents)

IT 88-24-4, 2,2'-Methylenebis(6-tert-butyl-4-ethylphenol) 88-27-7,
2,6-Di-tert-butyl-4-(dimethylaminomethyl)phenol 112-80-1D,
9-Octadecenoic acid (9Z)-, N-hydroxyethylimidazoline edrivs., uses

119-47-1, 2,2'-Methylenebis(6-tert-butyl-4-methylphenol)
120-40-1, Lauric diethanolamide
122-32-7, Glyceryl trioleate 123-28-4, Didodecyl
3,3'-thiodipropionate 142-78-9, Lauric monoethanolamide
471-34-1, Calcium carbonate, uses 577-11-7, Sodium dioctyl
sulfosuccinate 693-36-7, Dioctadecyl 3,3'-thiodipropionate
695-10-3D, coco and oleic and tall oil derivs. 1314-13-2, Zinc
oxide, uses 1314-23-4, Zirconium oxide, uses 1314-98-3, Zinc
sulfide, uses 1338-39-2, Sorbitan monolaurate 1338-43-8,
Sorbitan monooleate 1344-28-1D, Alumina, hydrated 1709-70-2,
1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene
1843-05-6 4229-35-0 7631-86-9, Silica, uses 7727-43-7, Barium
sulfate 7789-75-5, Calcium fluoride, uses 9002-88-4
9002-92-0, Lauryl alcohol ethoxylate 9003-08-1,
Formaldehyde-melamine copolymer 9003-09-2, Poly(methyl vinyl
ether) 9003-11-6, Ethylene oxide-propylene oxide copolymer
9003-17-2, Polybutadiene 9003-17-2D, Polybutadiene,
dicarboxy-terminated 9003-17-2D, Polybutadiene, phenyl-terminated
9003-18-3, Acrylonitrile-butadiene copolymer 9003-20-7, Poly(vinyl
acetate) 9003-21-8, Poly(methyl acrylate) 9003-27-4 9003-28-5,
Poly(1-butene) 9003-31-0, Polyisoprene 9003-32-1, Poly(ethyl
acrylate) 9003-42-3, Poly(ethyl methacrylate) 9003-44-5,
Poly(isobutyl vinyl ether) 9003-47-8, Poly(vinylpyridine)
9003-49-0, Poly(butyl acrylate) 9003-53-6, Polystyrene
9003-54-7, Acrylonitrile-styrene copolymer 9003-55-8,
Butadiene-styrene copolymer 9003-56-9, Acrylonitrile-butadiene-
styrene copolymer 9003-63-8, Poly(butyl methacrylate) 9003-77-4,
Poly(2-ethylhexyl acrylate) 9003-95-6, Poly(vinyl stearate)
9004-36-8, Cellulose acetate butyrate 9004-38-0, Cellulose acetate
hydrogen phthalate 9004-41-5, Cyanoethylated cellulose
9004-48-2, Cellulose propionate 9004-57-3, Ethylcellulose
9004-74-4 9004-81-3, Poly(ethylene glycol) monolaurate
9004-96-0, Poly(ethylene glycol) monooleate 9004-98-2 9005-02-1,
Poly(ethylene glycol) dilaurate 9005-07-6, Poly(ethylene glycol)
dioleate 9005-64-5, Poly(oxyethylene) sorbitan monolaurate
9005-65-6, Poly(oxyethylene) sorbitan monooleate 9005-70-3,
Poly(oxyethylene) sorbitan trioleate 9006-26-2, Maleic
anhydride-ethylene copolymer 9010-79-1, Ethylene
-propylene copolymer 9010-85-9,
Isobutylene-isoprene copolymer 9010-86-0, Ethylene-ethyl acrylate
copolymer 9011-05-6, Formaldehyde-urea copolymer 9011-05-6D,
Formaldehyde-urea copolymer, alkylated 9011-06-7, Vinyl
chloride-vinylidene chloride copolymer 9011-14-7, Poly(methyl
methacrylate) 9011-16-9, Maleic anhydride-methyl vinyl ether
copolymer 9011-53-4, Butyl methacrylate-isobutyl methacrylate
copolymer 9016-45-9, Nonyl phenol ethoxylate 9017-21-4,
Poly(vinyltoluene) 9019-70-9, Styrene-vinylpyridine copolymer
9022-52-0, Poly(chlorostyrene) 9036-19-5, Octyl phenol ethoxylate
9036-63-9, Poly(isooctyl acrylate) 9050-31-1, Hydroxypropylmethyl
cellulose phthalate 9053-30-9, Poly(tert-butylstyrene)
10101-39-0 10595-72-9, Ditridecyl 3,3'-thiodipropionate
13463-67-7, Titanium dioxide, uses 14995-49-4 16432-81-8

16545-54-3 24936-41-2, Poly(4-methylstyrene) 24936-97-8,
Poly(1,4-butylene adipate) 24937-05-1, Poly(ethylene adipate)
24937-78-8, Ethylene-vinyl acetate copolymer 24938-37-2,
Poly(ethylene adipate) 24938-67-8, Poly(2,6-dimethyl p-phenylene
oxide) 24969-10-6, Epichlorohydrin-ethylene oxide copolymer
24979-82-6, Poly(propyl acrylate) 24991-55-7, Poly(ethylene glycol
dimethyl ether) 25014-31-7, Poly(α -methylstyrene)
25035-78-3, Poly(diallyl isophthalate) 25035-84-1, Poly(vinyl
propionate) 25036-21-9, Poly(benzyl acrylate) 25037-78-9,
Ethylene-vinyl chloride copolymer 25053-15-0, Poly(diallyl
phthalate) 25086-48-0, Vinyl acetate-vinyl alcohol-vinyl chloride
copolymer 25087-17-6, Poly(hexyl methacrylate) 25103-87-1,
Poly(1,4-butylene adipate) 25119-62-4, Allyl alcohol-styrene
copolymer 25153-40-6, Maleic acid-methyl vinyl ether copolymer
25189-01-9, Poly(phenyl methacrylate) 25213-24-5, Vinyl
acetate-vinyl alcohol copolymer 25213-39-2, Butyl
methacrylate-styrene copolymer 25232-27-3, Poly(tert-butyl
acrylate) 25249-16-5, Poly(2-hydroxyethyl methacrylate)
25266-02-8, Maleic anhydride-1-octadecene copolymer 25266-13-1,
Poly(octyl acrylate) 25322-68-3 25322-69-4 25496-72-4,
Glyceryl monooleate 25569-53-3, Poly(ethylene succinate)
25587-82-0, Poly(2,4,6-tribromostyrene) 25609-74-9, Poly(propyl
methacrylate) 25637-84-7, Glyceryl dioleate 25639-21-8,
Poly(octadecyl methacrylate) 25667-11-2, Poly(ethylene succinate)
25719-51-1, Poly(2-ethylhexyl methacrylate) 25719-52-2,
Poly(lauryl methacrylate) 25721-76-0, Poly(ethylene glycol
dimethacrylate) 25852-47-5 25852-49-7, Poly(
propylene glycol dimethacrylate) 25986-77-0,
Poly(octadecyl acrylate) 26022-14-0, Poly(2-hydroxyethyl acrylate)
26124-32-3, Poly(isopropyl acrylate) 26246-92-4, Poly(lauryl
acrylate) 26264-05-1, Isopropylamine dodecylbenzenesulfonate
26264-06-2, Calcium dodecylbenzenesulfonate 26266-58-0, Sorbitan
trioleate 26403-72-5, Poly(ethylene glycol diglycidyl ether)
26570-48-9 26715-88-8, Poly(vinyl pivalate) 26716-20-1,
Poly(tert-butylaminoethyl methacrylate) 26760-99-6, Poly(ethylene
azelate) 26762-07-2, Poly(ethylene azelate) 27103-47-5,
Poly(hexyl acrylate) 27458-65-7, Poly(cyclohexyl acrylate)
27516-89-8 28158-21-6, Poly(trimethylene succinate) 28265-35-2,
Butadiene-maleic acid copolymer 28406-56-6, Poly(2-
vinyl naphthalene) 28628-64-0, Poly(2-methoxyethyl acrylate)
28725-67-9, Poly(trimethylene succinate) 28725-68-0 29320-53-4,
Poly(decyl methacrylate) 29500-86-5, Poly(decyl acrylate)
29963-76-6, Poly[2-(4-benzoyl-3-hydroxyphenoxy)ethyl acrylate]
32628-06-1 36221-42-8, Poly(trimethylene adipate) 36568-42-0,
Poly(trimethylene adipate) 37200-12-7, Poly(isodecyl methacrylate)
39350-27-1, Poly(bromostyrene) 40601-76-1 52234-59-0,
Poly(trimethylene glutarate) 52256-48-1, Poly(trimethylene
glutarate) 52985-34-9, Polychloroisoprene 53761-76-5, Butyl
methacrylate-4-vinylpyridine copolymer 54841-40-6, Poly(isodecyl
acrylate) 62501-03-5, Poly(hydroxypropyl acrylate) 66987-22-2,
Poly(vinyl neodecanoate) 67845-93-6, Hexadecyl
3,5-di-tert-butyl-4-hydroxybenzoate 71599-31-0,

Poly(methoxystyrene) 72779-48-7, Hydroxyethylcellulose
methacrylate 79720-19-7 82451-48-7 91313-01-8 93792-59-7,
Hydroxypropylmethyl cellulose succinate 106917-30-0 106917-31-1
111483-45-5, Hydroxyethylcellulose acrylate 122269-49-2, Ethylene
oxide-isoprene block copolymer 145332-37-2, Ethylene
oxide-2-hydroxyethyl methacrylate block copolymer 201798-70-1,
Ethylene oxide-hydroxypropyl methacrylate block copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(laminatable backing substrates for simulated photog.-quality
print prepn. contg.)

IT 9002-86-2, Poly(vinyl chloride) 9003-07-0,
Polypropylene 9012-09-3, Cellulose triacetate
9020-32-0, Polyethylene naphthalate
9020-73-9 24981-14-4, Poly(vinyl fluoride)
RL: TEM (Technical or engineered material use); USES (Uses)
(transparent supports for simulated photog.-quality prints with
laminatable backing substrates contg. paper desizing agents)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L75 ANSWER 35 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:427940 HCAPLUS

DOCUMENT NUMBER: 129:162263

TITLE: Antistatic thermoplastic resin
composition

INVENTOR(S): Osaki, Tadayuki; Hosoda, Kenichi; Kitatono,
Kaoru; Komori, Yoshiyuki; Hine, Yoshimitsu;
Kitano, Takafumi

PATENT ASSIGNEE(S): Marubishi Oil Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10176115	A2	19980630	JP 1996-341581	199612 20
PRIORITY APPLN. INFO.:				JP 1996-341581 199612 20

AB The title compns. are prepd. by combining and melt-kneading (A)
80-95 parts thermoplastic resin, (B) 3-15 parts polyether-ester-
amide, (C) 0.3-5 parts alkylene oxide oligomer monoalkyl ether
(no.-av. mol. wt. 500-5000), (D) 0.1-3 parts 1-5:1 styrene-maleic
anhydride copolymer oligomer (no.-av. mol. wt. 1000-4000), and (E)

0-2 parts org. **sulfonic acid** alkali metal salts, where the total of A-E is 100 parts, and with wt. ratio of C:D is 50-90:10-50. The compns. have semipermanent **antistatic** properties and good mech. and thermal properties.

- IC ICM C08L101-00
ICS C08G069-44; C08L077-02; C08L101-00; C08L077-12; C08L071-02;
C08L025-08
- CC 37-6 (Plastics Manufacture and Processing)
- ST thermoplastic compn **antistatic**;
polyetheresteramide compn **antistatic**;
oligooxyalkylene monoalkyl ether **antistatic** agent; styrene
maleic anhydride oligomer; alkali sulfonate **antistatic**
agent
- IT Sulfonates
RL: MOA (Modifier or additive use); USES (Uses)
(alkali metal; **antistatic** thermoplastic resin compn.)
- IT **Antistatic** agents
(**antistatic** thermoplastic resin compn.)
- IT Acrylic polymers, properties
Polycarbonates, properties
Polyoxyalkylenes, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**antistatic** thermoplastic resin compn.)
- IT Polyoxyphenylenes
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(modified; **antistatic** thermoplastic resin compn.)
- IT Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyamide-polyester**-; **antistatic**
thermoplastic resin compn.)
- IT Synthetic rubber, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyamide-polyester-polyether**, MAP-55,
MAP-65, Pelestat 7490; **antistatic** thermoplastic resin
compn.)
- IT **Polyester** rubber
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyamide-polyether**-, MAP-55, MAP-65, Pelestat 7490;
antistatic thermoplastic resin compn.)
- IT **Polyesters**, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyamide-polyether**-; **antistatic**
thermoplastic resin compn.)
- IT **Polyamides**, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyester-polyether**-; **antistatic**
thermoplastic resin compn.)
- IT Alkali metal salts
RL: MOA (Modifier or additive use); USES (Uses)
(sulfonates; **antistatic** thermoplastic resin compn.)
- IT Plastics, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(thermoplastics; antistatic thermoplastic resin compn.)

IT 25155-30-0, Sodium dodecylbenzenesulfonate
 RL: MOA (Modifier or additive use); USES (Uses)
 (Elecac S 412; antistatic thermoplastic resin compn.)

IT 9010-88-2
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (Sumipex EX; antistatic thermoplastic resin compn.)

IT 211059-20-0, Denon V 51
 RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic thermoplastic resin compn.)

IT 100-42-5D, Styrene, rubber-modified polymers 9004-74-4, Uniox
 M-1000 9011-13-6, Styrene-maleic anhydride copolymer 24936-68-3,
 Calibre 301-10, properties 25037-45-0 25322-68-3,
 Polyoxyethylene glycol 160170-90-1, Sumibrite M 584 211059-01-7,
 Artlex HT 4500
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (antistatic thermoplastic resin compn.)

L75 ANSWER 36 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:214602 HCAPLUS

DOCUMENT NUMBER: 128:258095

TITLE: Internal modifiers for styrene resin molded
 products with improved electrostatic coatability
 and water resistance of coatings for vehicles

INVENTOR(S): Kamiyama, Shiro; Ohama, Katsuki; Masuda, Hisa;
 Okata, Takeo; Inada, Eiji

PATENT ASSIGNEE(S): Honda Motor Co., Ltd., Japan; Sanyo Chemical
 Industries Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10087931	A2	19980407	JP 1996-240752	199609 11
JP 3051344	B2	20000612		
WO 9946328	A1	19990916	WO 1998-JP957	199803 09

W: CA, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
 PT, SE

ES 2210723	T3	20040701	ES 1998-905814	199803 09
------------	----	----------	----------------	--------------

PRIORITY APPLN. INFO.: JP 1996-240752 A

199609
11

EP 1998-905814 A

199803
09

- AB The modifiers comprise (A) 100 parts arom. ring-contg. **poly(ether-ester-amides)** having reduced viscosity 0.5-4.0 (0.5% m-cresol soln., 25°) derived from carboxy-terminated **polyamides** (Mn 500-5000) and bisphenol-alkylene oxide adducts (Mn 1600-3000) and (B) 5-100 parts modified vinyl copolymers composed of **sulfonic acid (salt)** group-contg. vinyl monomers and other vinyl comonomers having functional groups reactive with the **poly(ether-ester-amides)**, where the polymers may react each other. Thus, ϵ -caprolactam 83.5, bisphenol A-ethylene oxide adduct (Mn 2000) 192, and terephthalic acid 16.5 parts were polymd. to give a **poly(ether-ester-amide)** (I; reduced viscosity 2.10), sep., acrylonitrile 16, styrene 75, glycidyl methacrylate 4, and Na styrenesulfonate 6 parts were polymd. to give a copolymer (II), which was melt kneaded with 60 parts I and 25 parts ABS resin (JSR ABS 10) to give a master batch. A compn. of the master batch 20, I 12, II 3, the ABS resin 85, and KCl (added in prepn. of I) 0.5 part was injection molded to give a test piece showing Izod impact strength 43 kg-cm/cm, flexural modulus 17,000 kg/cm², surface resistivity $1 + 10^{10} \Omega$ initially and no change after washing, and cross-cut adhesion of electrostatically applied acrylic urethane coating 100/100 even after immersion in H₂O.
- IC ICM C08L025-18
ICS C08L025-04; C08L033-20; C08L057-00; C08L069-00; C08L077-00
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 42
- ST ABS resin electrostatic coatability improvement; polyether **polyester polyamide** blend ABS coatability; styrenesulfonate polymer blend ABS electrostatic coatability; water resistance coating ABS resin
- IT Polycarbonates, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(ABS resin blends; **poly(ether-ester-amides)** and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT **Antistatic agents**
Electrodeposits
Vehicles
Waterproofing agents
(**poly(ether-ester-amides)** and sulfo-contg. vinyl polymers as internal modifiers for styrene

- resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polymer blends
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(poly(ether-ester-amides)
and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyamide-polyester-; poly(ether-ester-amides) and sulfo-contg.
vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polyesters, preparation
Polyesters, preparation
Polyesters, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyamide-polyoxyalkylene-; poly(ether-ester-amides) and sulfo-contg.
vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polyamides, preparation
Polyamides, preparation
Polyamides, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyester-polyoxyalkylene-; poly(ether-ester-amides) and sulfo-contg.
vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT 175649-47-5P, Bisphenol A-ethylene oxide adduct-ε-caprolactam-terephthalic acid copolymer 205439-13-0P, Acrylonitrile-glycidyl methacrylate-sodium styrenesulfonate-styrene copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(poly(ether-ester-amides)
and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water

resistance of coatings for vehicles)
 IT 106677-58-1, JSR ABS 10 175386-85-3, Multilon T 3000
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
 or engineered material use); USES (Uses)
 (poly(ether-ester-amides)
 and sulfo-contg. vinyl polymers as internal modifiers for styrene
 resins with improved electrostatic coatability and water
 resistance of coatings for vehicles)

L75 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:98477 HCAPLUS
 DOCUMENT NUMBER: 128:154933
 TITLE: Antistatic polymer compositions with
 excellent impact resistance
 INVENTOR(S): Hashimoto, Yoshihiko; Ichioka, Teruhiro
 PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan;
 Techno Polymer Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10036628	A2	19980210	JP 1996-209076	199607 19
JP 3618478	B2	20050209	JP 1996-209076	199607 19

PRIORITY APPLN. INFO.:

AB The compns., useful for elec. and electronic parts, etc., comprise
 (A) mixts. of 0-90% copolymers of arom. vinyl compds. 50-90, vinyl
 cyanides 10-40, alkyl (meth)acrylates 0-40, N-substituted maleimides
 0-40, and other vinyl comonomers 0-20% and 10-100% graft copolymers
 of 10-95% rubbers ($T_g \leq 0^\circ$) grafted with 5-90% monomer
 mixts. of $\alpha\%$ arom. vinyl compds., $\beta\%$ vinyl cyanides,
 $\gamma\%$ alkyl (meth)acrylates, and $\delta\%$ other vinyl comonomers,
 satisfying $(\beta + \gamma)/4 = 10-40$, $\delta = 100 - \beta -$
 $\gamma - \alpha$, $\beta \geq 0$, $\gamma \geq 0$, $\alpha =$
 0-90, and $\delta = 0-20$, (B) 1-10 parts (vs. 100 parts A)
 poly(ether-ester-amides)
 derived from carboxy-terminated polyamides (M_n 500-5000)
 and bisphenol-ethylene oxide adducts (M_n 300-3000) and/or
 poly(ethylene oxide) (M_n 300-6000), (C) 0.1-10 parts (same as above)
 adducts of alkylene oxides and sapond. ethylene-satd. carboxylic
 acid vinyl ester copolymers, (D) 0.1-5 parts (same as above)
 alkanesulfonate salts and/or alkylbenzenesulfonate salts, and (E)

0.1-5 parts (same as above) phosphorous acid derivs., metaphosphoric acid derivs., and/or pyrophosphates. Thus, monomers of α -methylstyrene 73, styrene 2, and acrylonitrile 25% were polymd. in an aq. media in the presence of tert-dodecyl mercaptan and cumene hydroperoxide to give a copolymer (I), sep., 70 parts (solid) polybutadiene rubber ($T_g -90^\circ$) was grafted with 20 parts styrene and 10 parts acrylonitrile to give a graft copolymer latex, 30 parts of which was blended with 70 parts I and 0.6 part antioxidants, coagulated, washed, and dried to give a mixt. A compn. of the mixt. 100, a poly(ether-amide) [prepd. from ω -caprolactam 30.3, adipic acid 4.9, and bisphenol A-ethylene oxide adduct (M_n 2000) 64.8 parts] 4.5, ethoxylated sapon. ethylene-vinyl acetate copolymer 1.5, Na dodecanesulfonate 1.5, K4P2O7 1.0, ethylenebisstearamide 1, and antioxidants 0.6 part was extruded to give a test piece showing heat distortion temp. 105° under 18.6-kg load, Izod impact strength 10 kg-cm/cm, and static charge half life 0.5 s initially and no change after washed.

- IC ICM C08L055-02
ICS C08K005-42; C08K005-51; C08L025-12; C08L055-02; C08L077-00;
C08L071-02; C08L077-12
- CC 37-6 (Plastics Manufacture and Processing)
- ST polyether polyester polyamide antistatic
ABS resin; pyrophosphate blend antistatic ABS impact
resistance; sodium dodecanesulfonate antistatic ABS AS
blend; ethoxylated vinyl alc polymer antistatic ABS
- IT Sulfonates
RL: MOA (Modifier or additive use); USES (Uses)
(alkanesulfonates, C8-18, potassium salts; antistatic
ABS resin compns. with good impact resistance)
- IT Antistatic agents
Impact-resistant materials
(antistatic ABS resin compns. with good impact
resistance)
- IT Polymer blends
RL: PRP (Properties)
(antistatic ABS resin compns. with good impact
resistance)
- IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(polyamide-polyester-; antistatic
ABS resin compns. with good impact resistance)
- IT Polyesters, preparation
Polyesters, preparation
Polyesters, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(polyamide-polyoxyalkylene-; antistatic ABS
resin compns. with good impact resistance)

- IT Polyamides, preparation
Polyamides, preparation
Polyamides, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(polyester-polyoxyalkylene-; antistatic ABS
resin compns. with good impact resistance)
- IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(polymers with sapond. ethylene-vinyl acetate copolymer;
antistatic ABS resin compns. with good impact resistance)
- IT 24937-78-8DP, Ethylene-vinyl acetate copolymer, sapond., ethoxylated
25322-68-3DP, Polyethylene glycol, polymers with sapond.
ethylene-vinyl acetate copolymer 115180-63-7P, Adipic
acid- ω -caprolactam- polyethylene glycol block
copolymer 151819-95-3P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(antistatic ABS resin compns. with good impact
resistance)
- IT 9003-54-7P, Acrylonitrile-styrene copolymer 9010-96-2P,
Acrylonitrile- α -methylstyrene-styrene copolymer 31621-07-5P,
Acrylonitrile-phenylmaleimide-styrene copolymer 106677-58-1P,
Acrylonitrile-butadiene-styrene graft copolymer 107080-92-2P,
Butadiene-methyl methacrylate-styrene graft copolymer
111966-36-0P, Butadiene-methacrylic acid-methyl methacrylate-styrene
graft copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); PREP (Preparation); USES (Uses)
(antistatic ABS resin compns. with good impact
resistance)
- IT 98-11-3D, Benzenesulfonic acid, C8-18 alkyl
derivs., salts, uses 2386-53-0, Sodium dodecanesulfonate
7320-34-5, Potassium pyrophosphate 7722-88-5 7790-53-6,
Potassium polymetaphosphate 13598-36-2, Phosphorous acid, uses
50813-16-6, Sodium polymetaphosphate
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic ABS resin compns. with good impact
resistance)

L75 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:756853 HCAPLUS

DOCUMENT NUMBER: 128:62278

TITLE: Thermoplastic resin compositions recyclable
without losing antistatic properties

INVENTOR(S): Nakayama, Yutaka

PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09302241	A2	19971125	JP 1996-121475	19960516
PRIORITY APPLN. INFO.:				19960516

OTHER SOURCE(S): MARPAT 128:62278

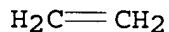
AB The title compns. comprise 100 parts thermoplastic resins, 1-30 parts quaternary ammonium group-contg. copolymers, and 0.01-5 parts H₂NRCO₂H or H₂NRSO₃H (R = C1-12 alkylene, phenylene). A 93:3:4 ethylene-Et acrylate-acrylic acid copolymer was amidated with (dimethylamino)propylamine then quaternized with MeI. A title compn. comprised 100 parts **polypropylene**, 10 parts the above product, and 0.3 part taurine.

IT 9002-88-4, **Polyethylene** 9003-07-0;
Polypropylene 24968-12-5, PBT 1401X06
26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
32131-17-2, Nylon 66, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(thermoplastic resin compns. recyclable without losing antistatic properties)

RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1
CMF C2 H4



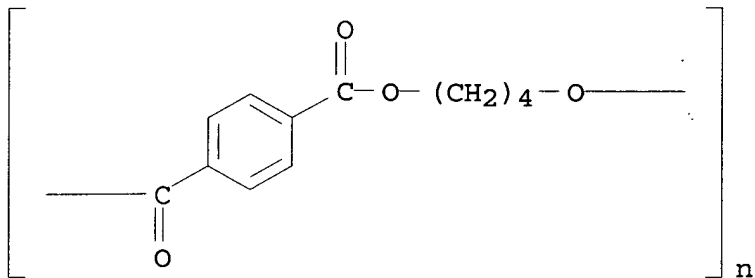
RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1
CMF C3 H6



RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

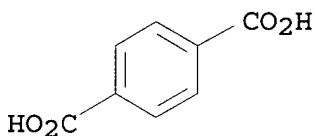
CM 1

CRN 110-63-4
 CMF C4 H10 O2

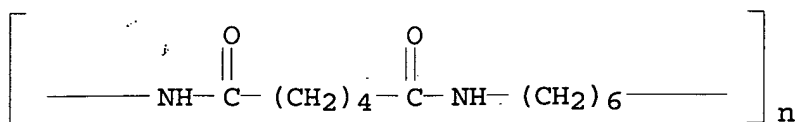
HO—(CH₂)₄—OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



RN 32131-17-2 HCAPLUS
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA
 INDEX NAME)



- IC ICM C08L101-00
ICS C08K005-17; C08K005-42; C08L023-00; C08L023-04; C08L025-00;
C08L027-00; C08L033-10; C08L055-02; C08L067-00; C08L077-00;
C08L101-00; C08L101-02
- CC 37-6 (Plastics Manufacture and Processing)
- ST thermoplastic resin **antistatic** recyclable;
polyolefin quaternary ammonium polymer **antistatic**
recyclable; amino acid **antistatic** recyclable thermoplastic
resin; **aminosulfonic acid antistatic**
recyclable thermoplastic resin
- IT Quaternary ammonium compounds, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polymeric; thermoplastic resin compns. recyclable without losing
antistatic properties)
- IT **Antistatic agents**
(thermoplastic resin compns. recyclable without losing
antistatic properties)
- IT Amino acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(thermoplastic resin compns. recyclable without losing
antistatic properties)
- IT **Polyamides**, properties
Polycarbonates, properties
Polyolefins
Polyoxyphenylenes
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(thermoplastic resin compns. recyclable without losing
antistatic properties)
- IT 64-67-5DP, Diethyl sulfate, acrylic acid copolymer amides
quaternized by 74-88-4DP, Methyl iodide, acrylic acid copolymer
amides quaternized by 109-55-7DP, acrylic acid copolymer amides
with, quaternized 9010-77-9DP, Acrylic acid-ethylene copolymer,
amides with diamines, quaternized 9011-13-6DP, Maleic
anhydride-styrene copolymer, imides with diamines, quaternized
25134-48-9DP, Acrylic acid-ethyl acrylate-ethylene copolymer, amides
with diamines, quaternized 31069-95-1DP, Ethyl methacrylate-maleic
anhydride-styrene copolymer, imides with diamines, quaternized
51024-16-9DP, Styrene-vinylbenzyl chloride copolymer, acrylic acid
copolymer amides quaternized by octyldimethylamine 188549-88-4DP,
acrylic acid copolymer amides quaternized by octyldimethylamine
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(thermoplastic resin compns. recyclable without losing

antistatic properties)

IT 56-40-6, Glycine, uses 56-41-7, Alanine, uses 56-86-0, Glutamic acid, uses 81-16-3, Tobias acid 107-35-7, Taurine 118-92-3 121-47-1, Metanilic acid 121-57-3, Sulfanilic acid 693-57-2, 12-Aminododecanoic acid

RL: MOA (Modifier or additive use); USES (Uses)
(thermoplastic resin compns. recyclable without losing
antistatic properties)

IT 9002-86-2, TK 1000 **9002-88-4, Polyethylene**
9003-07-0, Polypropylene 9003-56-9, ABS polymer
9011-14-7, PMMA 24936-68-3, Toughlon A-2200, properties
24937-78-8, EVA **24968-12-5, PBT 1401X06** 25037-45-0,
Bisphenol A-carbonic acid copolymer **26062-94-2,**
1,4-Butanediol-terephthalic acid copolymer **32131-17-2,**
Nylon 66, properties 39316-43-3, Noryl 731 56572-92-0, Estyrene
H-65

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(thermoplastic resin compns. recyclable without losing
antistatic properties)

L75 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:731752 HCAPLUS

DOCUMENT NUMBER: 127:347124

TITLE: **Antistatic polycarbonate compositions
and their products**

INVENTOR(S): Kikuchi, Seiji

PATENT ASSIGNEE(S): Teijin Chemicals Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 09291207	A2	19971111	JP 1996-102891	199604 24
JP 3645354	B2	20050511		
PRIORITY APPLN. INFO.:			JP 1996-102891	199604 24

AB The title compns., with good heat and impact resistance, comprise
(a) polycarbonates (e.g., Panlite L-1225) 40-96, (b) arom.
polyesters (e.g., TR-8580) 2-50, (c) elastic copolymer of
butadiene, (meth)acrylates, and arom. vinyl compds. or composite
rubber of silicone rubber and acrylic rubber (e.g., Paraloid
EXL-2602, Metablen S-2001) 1-15, and (d) polyether-ester-amides

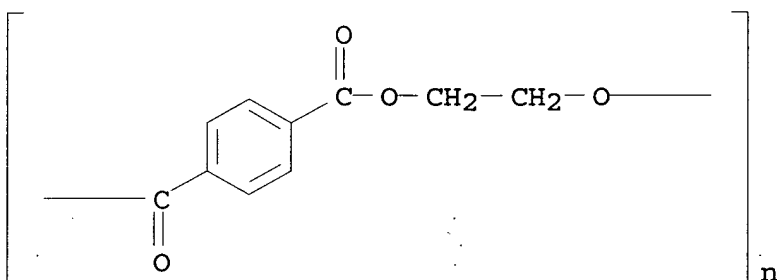
derived from **polyamides** and bisphenol-ethylene oxide adduct (e.g., copolymer of bisphenol A-ethylene oxide adduct and ϵ -caprolactam) 1-20%.

IT 25038-59-9, TR-8580, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**antistatic polycarbonate compns. and their products**)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08L069-00

ICS C08J005-00; C08L067-02; C08L069-00; C08L051-00; C08L077-12

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

ST **antistatic polycarbonate polyester acrylic**

rubber blend; PET polycarbonate blend **antistatic molding;**

polyetheresteramide polycarbonate blend antistatic

; elastic copolymer polycarbonate blend **antistatic**

IT **Sulfonic acids, uses**

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(C12-17-alkane, sodium salts, **antistatic agents;**

antistatic polycarbonate compns. and their products)

IT **Antistatic agents**

Chemically resistant materials

Heat-resistant materials

Impact-resistant materials

(**antistatic polycarbonate compns. and their products**)

IT Molded plastics, properties

Polycarbonates, properties

Polyesters, properties

Polyesters, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(**antistatic polycarbonate compns. and their products**)

IT Acrylic rubber

Synthetic rubber, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(butadiene-Me methacrylate-styrene, graft; **antistatic**

polycarbonate compns. and their products)

IT Molding of plastics and rubbers

- (injection; antistatic polycarbonate compns. and their products)
- IT Polyethers, properties
Polyethers, properties
Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyamide-polyester-; antistatic polycarbonate compns. and their products)
- IT Polyesters, properties
Polyesters, properties
Polyesters, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyamide-polyether-; antistatic polycarbonate compns. and their products)
- IT Polyamides, properties
Polyamides, properties
Polyamides, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyester-polyether-; antistatic polycarbonate compns. and their products)
- IT 3806-34-6, Distearyl pentaerythritol diphosphite
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(antistatic polycarbonate compns. and their products)
- IT 105-60-2D, ϵ -Caprolactam, polymer with bisphenol A-ethylene oxide adduct 24936-68-3, Panlite L-1225, properties 25038-59-9, TR-8580, properties 32492-61-8D, Bisphenol A-ethylene oxide adduct, polymer with ϵ -caprolactam 149718-92-3, Metablen S-2001
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(antistatic polycarbonate compns. and their products)

L75 ANSWER 40 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:731751 HCAPLUS
DOCUMENT NUMBER: 127:347123
TITLE: Antistatic aromatic polycarbonate compositions and their products
INVENTOR(S): Kikuchi, Seiji
PATENT ASSIGNEE(S): Teijin Chemicals Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 09291206	A2	19971111	JP 1996-102890	199604 24

PRIORITY APPLN. INFO.:

JP 1996-102890

199604

24

AB The title compns., with good abrasion and impact resistance, comprise (a) polycarbonates (e.g., Panlite L-1225) 30-86, (b) thermoplastic graft copolymers (e.g., Santac UT-61) 10-50, (c) PTFE (e.g., Lublon L-5) 3-20, (d) polyether-ester-amides derived from **polyamides** and bisphenol-ethylene oxide adduct (e.g., copolymer of bisphenol A-ethylene oxide adduct and ϵ -caprolactam) 1-20%, and optionally (e) flake inorg. fillers (e.g., talc) 5-40, (f) composite rubber graft copolymers (e.g., Paraloid EXL-2602, Metablen S-2001) 1-15, and/or (g) fireproofing agents (e.g., Sb₂O₃) 5-30 phr.

IT 9002-88-4, Hiwax 310MP

RL: MOA (Modifier or additive use); USES (Uses)
(**antistatic** polycarbonate compns. and their products)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H₂C=CH₂

IC ICM C08L069-00

ICS C08J005-00; C08L055-02; C08L069-00; C08L027-18; C08L077-12

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

ST **antistatic** polycarbonate ABS PTFE blend;

polyetheresteramide polycarbonate ABS blend

antistatic; talc polycarbonate ABS blend **antistatic**

; fireproofing agent antimony trioxide polycarbonate

IT **Sulfonic acids**, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(C12-17-alkane, sodium salts, **antistatic** agents;

antistatic polycarbonate compns. and their products)

IT Abrasion-resistant materials

Antistatic agents

Impact-resistant materials

(**antistatic** polycarbonate compns. and their products)

IT Fluoropolymers, properties

Molded plastics, properties

Polycarbonates, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(**antistatic** polycarbonate compns. and their products)

IT Acrylic rubber

- Synthetic rubber, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(butadiene-Me methacrylate-styrene, graft; antistatic polycarbonate compns. and their products)
- IT Molding of plastics and rubbers
(injection; antistatic polycarbonate compns. and their products)
- IT Polyethers, uses
Polyethers, uses
Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyamide-polyester-; antistatic polycarbonate compns. and their products)
- IT Polyesters, uses
Polyesters, uses
Polyesters, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyamide-polyether-; antistatic polycarbonate compns. and their products)
- IT Polyamides, uses
Polyamides, uses
Polyamides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyester-polyether-; antistatic polycarbonate compns. and their products)
- IT 105-60-2D, ϵ -Caprolactam, polymer with bisphenol A-ethylene oxide adduct 1309-64-4, Antimony trioxide, uses 9002-88-4, Hiwax 310MP 14807-96-6, Talc, uses 28774-93-8, FG-7000 32492-61-8D, Bisphenol A-ethylene oxide adduct, polymer with ϵ -caprolactam 149718-92-3, Metablen S-2001
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic polycarbonate compns. and their products)
- IT 512-56-1, Trimethyl phosphate
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(antistatic polycarbonate compns. and their products)
- IT 9002-84-0, Lublon L-5 24936-68-3, Panlite L-1225, properties 106677-58-1, Santac UT-61
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(antistatic polycarbonate compns. and their products)

L75 ANSWER 41 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:692203 HCAPLUS

DOCUMENT NUMBER: 127:347145

TITLE: Unsaturated polyoxyalkylenes with sulfonic acid groups for antistatic agents and thermoplastic resin compositions using the same

INVENTOR(S): Ogawa, Atsuhisa; Kuribayashi, Ryotaro; Furumiya, Yukiatsu

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Japanese
 PATENT INFORMATION:

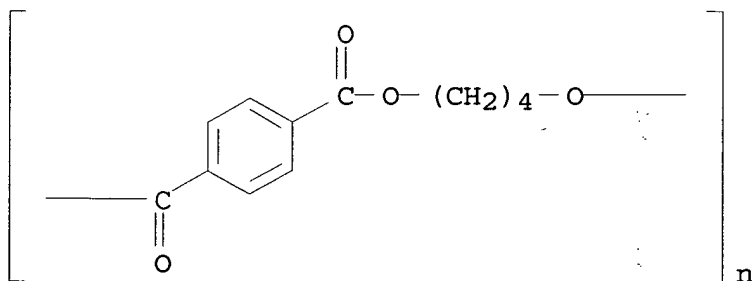
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09272721	A2	19971021	JP 1996-106241	19960403
PRIORITY APPLN. INFO.:				19960403
				JP 1996-106241

AB The copolymer (salts) comprise (A) 5-30% compd. units having SO₃H and ethylenic unsatd. bonds, (B) 10-70% units of CH₂CR₁CO₂R₂(OR₃)nOR₄ (R₁ = H, Me; R₂ = divalent hydrocarbyls which may contain OH; R₃ = C₂-4 divalent satd. aliph. hydrocarbyls; R₄ = C₄-30 monovalent hydrocarbyls; n = 3-200), and (C) ethylenic unsatd. compd. units other than A or B, wherein A + B = 20-90%. The comps. comprise 100 parts thermoplastic resins and 1-80 parts the copolymer (salts) as **antistatic** agents. Thus, Me methacrylate 20, Spinomar NaSS 20, and **polyethylene** glycol lauryl ether methacrylate 25 g were mixed in 1,4-dioxane-H₂O mixt. and polymd. in the presence of AIBN to give a copolymer, 10 parts of which was kneaded at 230° with 0.3 part PEP 36 and 90 parts Parapet EH at at 230° and molded at 240° to give test pieces showing flexural modulus 23,000 kg/cm², no discoloration after 60 min at 270°, and good elec. cond.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2
 , Poly(butylene terephthalate)
 RL: POF (Polymer in formulation); USES (Uses)
 (sulfo-contg. unsatd. polyoxyalkylenes for **antistatic**
 agents for thermoplastic resin comps.)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

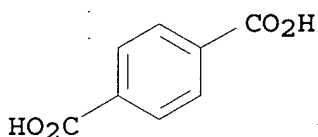
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



IC ICM C08F290-06
 ICS C08L033-02; C08L033-06; C08L101-00; C09K003-16; C08L057-04
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 35
 ST unsatd polyoxyalkylene sulfonic acid prepn;
 antistatic agent polyoxyalkylene thermoplastic resin compn;
 acrylic polymer compn polyoxyalkylene antistatic agent;
 sulfo polyoxyalkylene acrylate graft antistatic agent
 IT Polyoxyalkylenes, preparation
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PRP (Properties); PREP (Preparation); USES (Uses)
 (acrylic, graft, sulfo-contg.; sulfo-contg. unsatd.
 polyoxyalkylenes for antistatic agents for
 thermoplastic resin compns.)
 IT Antistatic agents
 (sulfo-contg. unsatd. polyoxyalkylenes for antistatic
 agents for thermoplastic resin compns.)
 IT Polycarbonates, uses
 Polyesters, uses
 RL: POF (Polymer in formulation); USES (Uses)
 (sulfo-contg. unsatd. polyoxyalkylenes for antistatic
 agents for thermoplastic resin compns.)
 IT 198403-12-2P 198403-13-3P 198403-14-4P 198403-15-5P
 198403-16-6P 198403-17-7P 198403-18-8P 198403-19-9P
 198403-20-2P 198403-21-3P 198403-22-4P 198403-23-5P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PRP (Properties); PREP (Preparation); USES (Uses)
(sulfo-contg. unsatd. polyoxyalkylenes for antistatic
agents for thermoplastic resin compns.)

IT 9003-56-9, Cycolac T 9011-14-7, Parapet EH 24936-68-3, Toughlon
A 2200, uses 24968-12-5, Poly(butylene terephthalate)
26062-94-2, Poly(butylene terephthalate)
RL: POF (Polymer in formulation); USES (Uses)
(sulfo-contg. unsatd. polyoxyalkylenes for antistatic
agents for thermoplastic resin compns.)

L75 ANSWER 42 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:618325 HCAPLUS

DOCUMENT NUMBER: 127:263670

TITLE: Transparent thermoplastic resin compositions
containing sulfoimide antistatic
agents

INVENTOR(S): Mizutani, Toshihiro; Ishikawa, Masahide;
Fujitani, Tsuratake

PATENT ASSIGNEE(S): New Japan Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

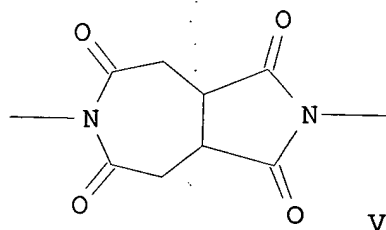
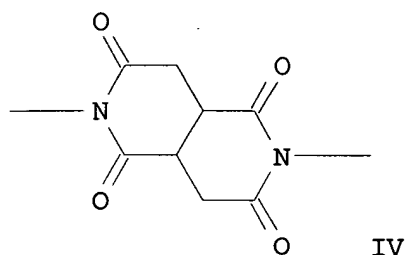
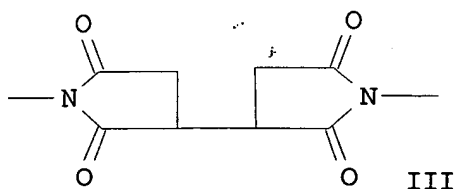
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 09235409	A2	19970909	JP 1996-69230	199602 28
PRIORITY APPLN. INFO.: JP 1996-69230				199602 28

GI



AB The compns. contain 100 parts of thermoplastic resins and 0.1-30 parts of sulfoimides RA(XY)aXBSO₃M (I) or MO₃SB(XY)cXB₃SO₃M (II) [R = hydrocarbonyl; A = direct bond, phenylene, O(CH₂)₃; B = direct bond, alkylene, arylene; M = H, alkali metal, alk. earth metal; X = III, IV, and V; Y = alkylene, phenylene, ether; a = 0-10]. Thus, 1,2,3,4-butanetetracarboxylic acid 0.3, m-xylenediamine 0.2, and 1-aminoethane-2-sulfonic acid 0.2 mol were allowed to react in water in the presence of NaOH at 260° to give a sulfoimide II [Y = CH₂C₆H₄CH₂, B = CH₂CH₂, M = Na, c = 1.8 (av.)], 3 parts of which was dry blended with 100 parts **polyethylene terephthalate**, sheeted at 270°, and left for 24 h at 25° and 60% RH to give test pieces showing light transparency 84%, surface sp. resistivity 8 + 10¹⁰ Ω initially and 8 + 10¹¹ Ω after washing, and half life ≤ 3 s.

IT 9020-32-0, Ethylene glycol-naphthalenedicarboxylic acid copolymer 9020-73-9, Poly(ethylene naphthalenedicarboxylate) 24968-12-5, Poly(butylene terephthalate) 25038-59-9, **Polyethylene terephthalate**, properties 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (transparent thermoplastic resin compns. contg. sulfoimide)

antistatic agents)

RN 9020-32-0 HCAPLUS

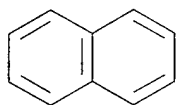
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS

2 [D1-CO₂H]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH₂-CH₂-OH

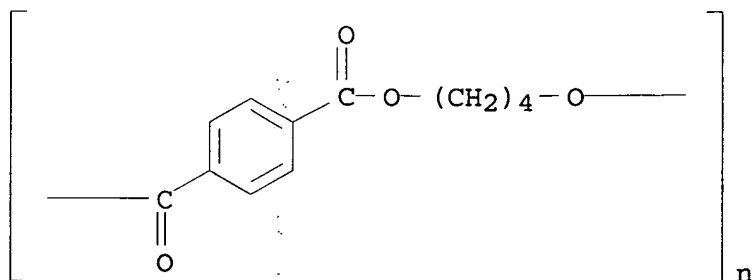
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

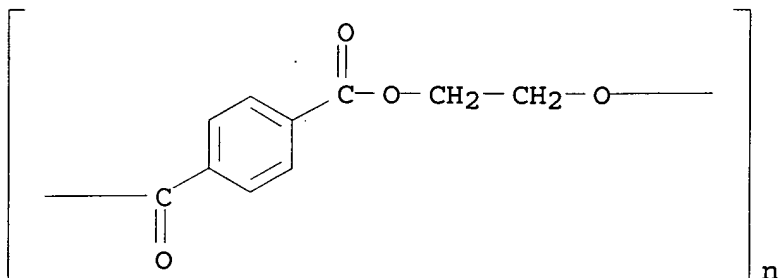
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

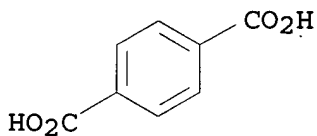
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



IC ICM C08K005-42
 ICS C08L101-00
 CC 37-6 (Plastics Manufacture and Processing)
 ST sulfoimide **antistatic** agent thermoplastic resin compn;
 butanetetracarboxylic acid sulfoimide deriv **antistatic**
 agent; **aminoethanesulfonic acid** terminated
 polyimide **antistatic** agent; **aminosulfonic**
 acid terminated polyimide **antistatic** agent
 IT Polyamides, properties

Polyesters, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(arom.; transparent thermoplastic resin compns. contg. sulfoimide
antistatic agents)

IT Polyimides, properties
Polyimides, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyamide-; transparent thermoplastic resin compns.
contg. sulfoimide antistatic agents)

IT Polyimides, properties
Polyimides, properties
Polyketones
Polyketones
Polysulfones, properties
Polysulfones, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyether-; transparent thermoplastic resin compns. contg.
sulfoimide antistatic agents)

IT Polyamides, properties
Polyamides, properties
Polyethers, properties
Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyimide-; transparent thermoplastic resin compns. contg.
sulfoimide antistatic agents)

IT Polyethers, properties
Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyketone-; transparent thermoplastic resin compns. contg.
sulfoimide antistatic agents)

IT Impact-resistant materials
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polystyrenes; transparent thermoplastic resin compns. contg.
sulfoimide antistatic agents)

IT Polyethers, properties
Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polysulfone-; transparent thermoplastic resin compns. contg.
sulfoimide antistatic agents)

IT Polyimides, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(thermoplastic; transparent thermoplastic resin compns. contg.
sulfoimide antistatic agents)

IT Antistatic agents
Transparent materials
(transparent thermoplastic resin compns. contg. sulfoimide
antistatic agents)

IT Polycarbonates, properties
Polyesters, properties
Polymer blends
Polyoxymethylenes, properties
Polyoxyphenylenes

Polysulfones, properties

Polythioarylenes

Polythiophenylenes

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(transparent thermoplastic resin compns. contg. sulfoimide
antistatic agents)

IT 100-42-5D, polymers

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(impact-resistant; transparent thermoplastic resin compns. contg.
sulfoimide **antistatic agents**)

IT 9003-56-9, ABS resin

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(modified with phenylmaleimide, α -methylstyrene, and/or
maleic anhydride; transparent thermoplastic resin compns. contg.
sulfoimide **antistatic agents**)

IT 25734-19-4DP, 2-sodiosulfoethyl-terminated 26521-07-3DP,
2-sodiosulfoethyl-terminated 26659-60-9DP, 1,2,3,4-
Butanetetracarboxylic acid-4,4'-diaminodiphenyl ether copolymer,
reaction products with 1-aminoethane-2-sulfonic
acid, sodium salts 38640-86-7DP, reaction
products with 1-aminoethane-2-sulfonic **acid,**
sodium salts 107999-63-3DP, 2-sodiosulfoethyl-terminated
130367-76-9DP, reaction products with 1-aminoethane-2-
sulfonic acid, sodium salts
180996-32-1DP, reaction products with 1-aminoethane-2-
sulfonic acid, sodium salts
183123-00-4DP, 1,3-Bis(aminomethyl)cyclohexane-1,2,3,4-
butanetetracarboxylic acid copolymer, reaction products with
sulfanilic acid, sodium salts 195974-47-1DP, 2-sodiosulfoethyl-
terminated 195974-48-2DP, reaction products with sulfanilic acid,
sodium salt 195974-49-3DP, 2-sodiosulfoethyl-terminated
195974-50-6DP, 2-sodiosulfoethyl-terminated 195974-51-7DP,
reaction products with p-dodecylaniline and sulfanilic acid, sodium
salts 195974-52-8DP, reaction products with p-dodecylaniline and
sulfanilic acid, sodium salts
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PRP (Properties); PREP (Preparation); USES (Uses)
(oligomeric; transparent thermoplastic resin compns. contg.
sulfoimide **antistatic agents**)

IT 9002-86-2D, PVC, chlorinated 9016-80-2, Polymethylpentene
9020-32-0, Ethylene glycol-naphthalenedicarboxylic acid
copolymer 9020-73-9, Poly(ethylene
naphthalenedicarboxylate) 24936-68-3, Bisphenol A polycarbonate,
sru, properties 24936-69-4, Poly(1,4-cyclohexanedimethylene
terephthalate) 24938-67-8, Poly(2,6-dimethyl-1,4-phenylene ether)
24968-12-5, Poly(butylene terephthalate) 25037-45-0
25037-99-4, 1,4-Cyclohexanedimethanol-terephthalic acid copolymer
25038-59-9, **Polyethylene terephthalate,**
properties 25038-76-0, Polynorbornene 25134-01-4, 2,6-Xylenol
homopolymer 26062-94-2, 1,4-Butanediol-terephthalic acid
copolymer 26590-50-1, Bisphenol A-isophthalic acid-terephthalic
acid copolymer 28325-75-9, Syndiotactic polystyrene 39281-59-9,

Bisphenol A-isophthalic acid-terephthalic acid copolymer, sru
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(transparent thermoplastic resin compns. contg. sulfoimide
antistatic agents)

L75 ANSWER 43 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:361018 HCAPLUS

DOCUMENT NUMBER: 127:18468

TITLE: **Polyester** resin compositions with good
heat resistance, mechanical and lasting
antistatic properties

INVENTOR(S): Yoshida, Seiji

PATENT ASSIGNEE(S): Mitsubishi Engineering Plastic K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09087496	A2	19970331	JP 1995-247675	199509 26

PRIORITY APPLN. INFO.: JP 1995-247675
199509
26

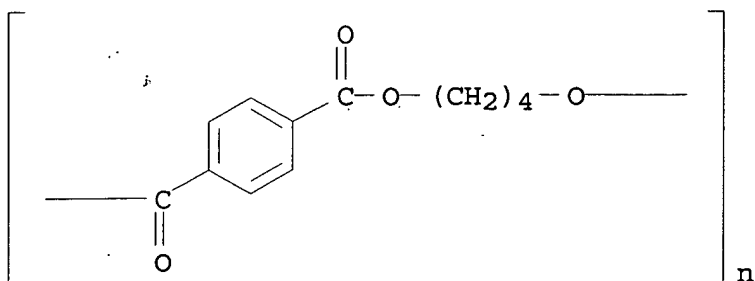
AB The compns. comprise (A) **polyesters** 98-50, (B) poly(ester
ethers) 2-50, and (C) org. **sulfonic acid**-type
antistatic agents 0-10%, where the poly(ester ethers)
consist of a hard segment derived from glycols and alkali metal
salts of sulfo-contg. dicarboxylic acids and a soft segment derived
from alkylene glycols and/or bisphenol-alkylene oxide adducts.
Prepg. a di-Me terephthalate-dimethyl isophthalate-dimethyl
3-sodiosulfoisophthalate-ethylene glycol-**polyethylene**
glycol block copolymer, melt kneading the block copolymer 10, Atrait
AS 1030, and PBT 88 parts, and injection molding gave test pieces
with surface intrinsic resistance $8.5 \times 10^{10} \Omega$, flexural
modulus 24,500, and heat distortion temp. 62°.

IT 24968-12-5, PBT 26062-94-2, Butanediol-
terephthalic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyester** resin compns. with good heat resistance,
mech. and lasting **antistatic** properties)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

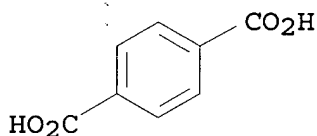
CMF C4 H10 O2

HO---(CH₂)₄---OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02

ICS C08G063-688; C08K005-42; C08L067-02; C08L067-00

CC 37-6 (Plastics Manufacture and Processing)

ST **polyester** compn heat resistance **antistatic**; PBT
compn **antistatic** heat resistant; polyether
polyester sulfonated **antistatic** compn

IT Plastics, properties

Polyesters, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(**polyester** resin compns. with good heat resistance,
mech. and lasting **antistatic** properties)

IT Polyethers, uses

Polyethers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(**polyester**-, sulfonated salt; **polyester** resin

- compns. with good heat resistance, mech. and lasting antistatic properties)
- IT **Polyesters, uses**
Polyesters, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyether-, sulfonated salt; **polyester** resin compns. with good heat resistance, mech. and lasting antistatic properties)
- IT **Antistatic agents**
 (sulfo poly(ester ethers); **polyester** resin compns. with good heat resistance, mech. and lasting antistatic properties)
- IT 136044-72-9P 189570-25-0P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)
 (**polyester** resin compns. with good heat resistance, mech. and lasting antistatic properties)
- IT 171758-24-0, Atrait AS1030
 RL: MOA (Modifier or additive use); USES (Uses)
 (**polyester** resin compns. with good heat resistance, mech. and lasting antistatic properties)
- IT 24968-12-5, PBT 26062-94-2, Butanediol-terephthalic acid copolymer
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (**polyester** resin compns. with good heat resistance, mech. and lasting antistatic properties)

L75 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:253790 HCAPLUS

DOCUMENT NUMBER: 126:239704

TITLE: Electrically conductive composition and elements containing solubilized polyaniline complex
 INVENTOR(S): Gardner, Sylvia Alice; Shaw-Klein, Lori Jeannne; Brady, Brian Kenneth

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 758671	A2	19970219	EP 1996-202120	199607 25
EP 758671	A3	19970226		
EP 758671	B1	20000308		
R: DE, FR, GB				
US 5716550	A	19980210	US 1996-583266	

199601
05

JP, 09137088 A2 19970527 JP 1996-212799

199608
12

US 5910385 A 19990608 US 1997-918167

199708
25

PRIORITY APPLN. INFO.: US 1995-2104P P

199508
10

US 1996-583266 A

199601
05

AB Elec. conductive elements, such as imaging elements, can be prep'd. by applying elec. conductive coating compns. of a polyaniline-protonic counterion complex in a first solvent that has certain Hansen soly. parameters (polar soly. parameter, δ_p , 12-18 MPa^{1/2}, and a hydrogen bonding soly. parameter, δ_h , 5-14 MPa^{1/2}), and a film-forming binder in a second solvent. onto a suitable support. The total solids in the coating compn. is $\leq 10\%$, and the binder/complex ratio $\geq 1:1$. Antistatic layers of photog. elements can be prepared in this manner. Thus, 10-camphorsulfonic acid -stabilized polyaniline (in DMSO)/Elvacite 2010 binder (in dichloromethane) (1% solids) coating was applied to a PET support layer to give a conductive coating having resistivity $> 13 \Omega/\text{sq}$.

IT 9020-32-0, Polyethylene naphthalate
9020-73-9 25038-59-9, uses
RL: NUU (Other use, unclassified); USES (Uses)
(supports; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

RN 9020-32-0 HCAPLUS

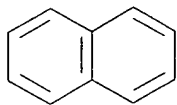
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS



2 [D1-CO₂H]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH₂-CH₂-OH

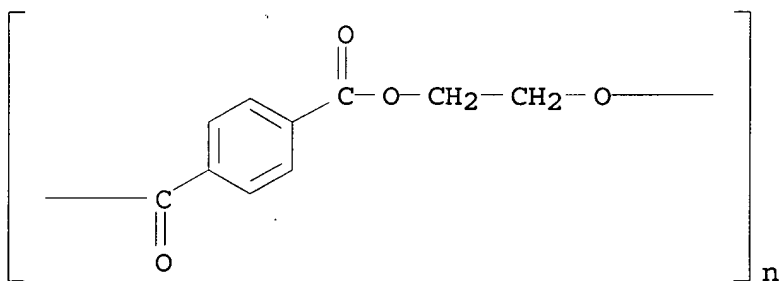
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



IC ICM C09D005-24

ICA C09D179-02

CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74, 77

ST elec conductor element doped polyaniline coating;
camphorsulfonic acid dopant polyaniline; magnetic
element conductive polymer; photog element conductive polymer;
dimethylsulfoxide solvent conductive polymer

IT Polyanilines

RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

(camphorsulfonic acid doped; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

IT Polyesters, uses

RL: NUU (Other use, unclassified); USES (Uses)
(supports; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

IT 25233-30-1, Polyaniline

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(camphorsulfonic acid doped; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

IT 75-75-2, Methanesulfonic acid 98-42-0

98-66-8, p-Chlorobenzenesulfonic acid

104-15-4, p-Toluenesulfonic acid, uses

121-03-9, 4-Nitrotoluene-2-sulfonic acid

121-65-3, 4-Dodecylbenzenesulfonic acid

594-45-6, Ethanesulfonic acid 636-73-7, 3-

Pyridinesulfonic acid 1333-39-7,

Hydroxybenzenesulfonic acid 1493-13-6

2373-23-1, Dioctylsulfosuccinate 3944-72-7, 1-

Octanesulfonic acid 4065-45-6,

2-Hydroxy-4-methoxybenzophenone-5-sulfonic acid

4432-31-9, 4-Morpholineethanesulfonic acid

13595-73-8, Hexanesulfonic acid 15909-83-8, 3-

Hydroxypropanesulfonic acid 25322-17-2,

Dinonylnaphthalenesulfonic acid 28210-41-5, p-

Polystyrenesulfonic acid 57352-34-8,

Ethylbenzenesulfonic acid 87116-96-9,

Trichlorobenzenesulfonic acid

RL: TEM (Technical or engineered material use); USES (Uses)
(elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

IT 9004-35-7, Cellulose acetate 9020-32-0,

Polyethylene naphthalate 9020-73-9

25038-59-9, uses

RL: NUU (Other use, unclassified); USES (Uses)
(supports; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

L75 ANSWER 45 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:681881 HCAPLUS

DOCUMENT NUMBER: 121:281881

TITLE: Durable antistatic resin compositions

INVENTOR(S): Watanabe, Ichiji; Nakada, Tatsuya

PATENT ASSIGNEE(S): Daicel Chem, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06065508	A2	19940308	JP 1992-219112	19920818
PRIORITY APPLN. INFO.:				19920818
				19920818

AB The title compns. contain thermoplastic resins 70-99, polyether ester elastomers prepd. from poly(alkylene oxide) glycols having no.-av. mol. wt. 200-20,000, C2-8 glycols, and C4-20 polybasic carboxylic acids and/or esters 1-30, and **sulfonic acid** metal salts 0-5 parts. Thus, a test piece contained 90 parts Cevian V 300 and 10 part elastomer prepd. from ethylene glycol-initiated ϵ -caprolactone polymer 100, di-Me terephthalate 100, and 1,4-butanediol 60 parts.

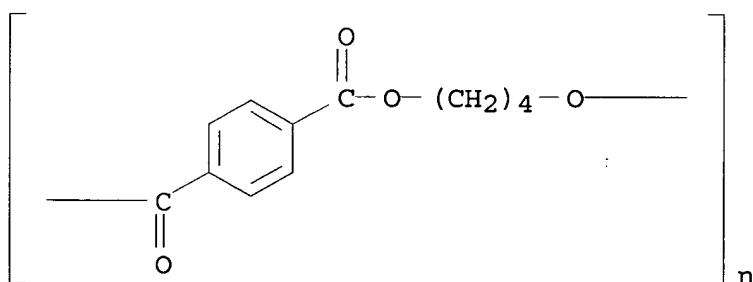
IT 24968-12-5, PBT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(antistatic blends contg. thermoplastics and polyester ether elastomers and **sulfonic acid salts**)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

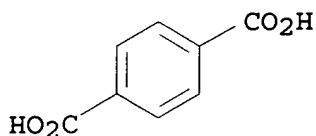
CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L101-00
ICS C08G063-668; C08G064-00; C08L055-02; C08L067-02; C08L071-02;
C09K003-16

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39

ST ABS polymer **antistatic** agent; **polyester** ether elastomer

IT Rubber, synthetic
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(butanediol-caprolactone-dimethyl terephthalate-ethylene glycol; **antistatic** blends contg. thermoplastics and **polyester** ether elastomers and **sulfonic acid salts**)

IT Rubber, synthetic
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(butanediol-caprolactone-dimethyl terephthalate-pyromellitic dianhydride; **antistatic** blends contg. thermoplastics and **polyester** ether elastomers and **sulfonic acid salts**)

IT Rubber, synthetic
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(caprolactone-cyclohexanedimethanol-dimethylpropiolactone-dimethyl terephthalate-trimellitic acid; **antistatic** blends contg. thermoplastics and **polyester** ether elastomers and **sulfonic acid salts**)

IT **Antistatic** agents
RL: MOA (Modifier or additive use); USES (Uses)
(sodium alkanesulfonates; **antistatic** blends contg. thermoplastics and **polyester** ether elastomers and **sulfonic acid salts**)

IT **Sulfonic acids**, uses

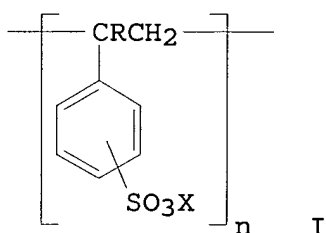
- RL: MOA (Modifier or additive use); USES (Uses)
(alkane, sodium salts, **antistatic** agent;
antistatic blends contg. thermoplastics and
polyester ether elastomers and **sulfonic**
acid salts)
- IT Sulfonates
RL: MOA (Modifier or additive use); USES (Uses)
(alkylarene, **antistatic** blends contg. thermoplastics
and **polyester** ether elastomers and **sulfonic**
acid salts)
- IT Sulfonates
RL: MOA (Modifier or additive use); USES (Uses)
(arene, **antistatic** blends contg. thermoplastics and
polyester ether elastomers and **sulfonic**
acid salts)
- IT Polyethers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(**polyester**-, rubber; **antistatic** blends contg.
thermoplastics and **polyester** ether elastomers and
sulfonic acid salts)
- IT Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(polyether-, rubber; **antistatic** blends contg.
thermoplastics and **polyester** ether elastomers and
sulfonic acid salts)
- IT 5838-34-6, Attrait AS 1000
RL: MOA (Modifier or additive use); USES (Uses)
(**antistatic** agents; **antistatic** blends contg.
thermoplastics and **polyester** ether elastomers and
sulfonic acid salts)
- IT 24968-12-5, PBT 26062-94-2, 1,4-Butanediol-
terephthalic acid copolymer 106677-58-1, Cevian V 300
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(**antistatic** blends contg. thermoplastics and
polyester ether elastomers and **sulfonic**
acid salts)
- IT 159078-06-5 159078-07-6 159078-08-7
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(rubber; **antistatic** blends contg. thermoplastics and
polyester ether elastomers and **sulfonic**
acid salts)

L75 ANSWER 46 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:165950 HCAPLUS
DOCUMENT NUMBER: 120:165950
TITLE: Permanent **antistatic** thermoplastic
polymer compositions with good mechanical
properties

INVENTOR(S): Tanaka, Seiji; Chiba, Kazumasa
 PATENT ASSIGNEE(S): Toray Industries, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05239279	A2	19930917	JP 1992-39448	19920226
PRIORITY APPLN. INFO.:				19920226
				19920226

GI



AB Title compns. contain (a) **polyolefins**, (b) **poly(ether ester amides)**, (c) **polyamides**, and (d) **styrenesulfonic acid** polymers contg. $\geq 50\%$ structural units I ($R = H$, alkyl, aryl; $X = H$, alkali metal, alk. earth metal, NH_4 ; $n = 1-20,000$) at wt. ratios $a/b = (10-99)/(90-1)$, $c/(a + b) = (1-50)/100$, and $d/(a + b) = (0.01-50)/100$. Thus, **polyethylene 85**, pelletized ϵ -caprolactam (II)- **polyethylene glycol-terephthalic acid copolymer 15**, II-hexamethylenediamine-isophthalic acid copolymer (40:60 mixt. of nylon 6 and nylon 6 isophthalate) 2.5, poly(Na styrenesulfonate) 0.1, and Himilan 1707 15 parts were mixed, melt kneaded at 230° , pelletized, and injection-molded to give disks showing surface resistivity $7 + 10^{10} \Omega$ initially and $3 + 10^{10} \Omega$ after washed with a detergent aq. soln. and with distd. H_2O thoroughly, dehydrated, and moistened at 23° and 50% relative humidity for 24 h .

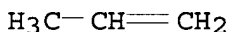
IT 9002-88-4D, **Polyethylene**, maleated
 9003-07-0D, **Polypropylene**, maleated
 RL: USES (Uses)
 (antistatic polyolefin-based thermoplastics)

contg.)

RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)
CM 1
CRN 74-85-1
CMF C2 H4



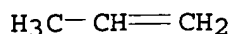
RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)
CM 1
CRN 115-07-1
CMF C3 H6



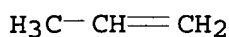
IT 9002-88-4, Polyethylene 9003-07-0,
Polypropylene 9010-79-1, Ethylene-
propylene copolymer
RL: USES (Uses)
(blends with poly(ether ester
amides) and polyamides and
polystyrenesulfonates, with improved antistatic and
mech. properties)
RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)
CM 1
CRN 74-85-1
CMF C2 H4



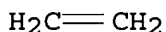
RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)
CM 1
CRN 115-07-1
CMF C3 H6



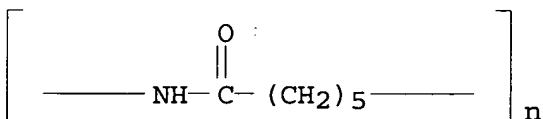
RN 9010-79-1 HCAPLUS
 CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)
 CM 1
 CRN 115-07-1
 CMF C3 H6



CM 2
 CRN 74-85-1
 CMF C2 H4



IT 25038-54-4, Nylon 6, uses
 RL: USES (Uses)
 (blends with polyolefins and poly(ether ester amides) and polystyrenesulfonates, with improved antistatic and mech. properties)
 RN 25038-54-4 HCAPLUS
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IC ICM C08L023-02
 ICS C08K005-42; C08L023-26; C08L025-18; C08L077-00; C08L077-12
 ICI C08L023-02, C08L077-00, C08L025-18
 CC 37-6 (Plastics Manufacture and Processing)
 ST antistatic property thermoplastic polymer compn; mech property thermoplastic polymer compn; polyether ester amide nonexudation compn; polyethylene blend thermoplastic; caprolactam copolymer blend thermoplastic; poloxyethylene copolymer blend thermoplastic; terephthalic acid copolymer blend

- thermoplastic; hexamethylenediamine copolymer **polyamide**
blend thermoplastic; isophthalic acid copolymer blend thermoplastic;
polysodium styrenesulfonate blend thermoplastic; ethylenic ionomer
compatibility improver thermoplastic
- IT **Polyamides, uses**
RL: USES (Uses)
(blends with **polyolefins** and **poly(ether ester amides)** and
polystyrenesulfonates, with improved **antistatic** and
mech. properties)
- IT **Polyethers, uses**
RL: USES (Uses)
(**polyamide-polyester-**, blends with
polyolefins and **polyamides** and
polystyrenesulfonates, with improved **antistatic** and
mech. properties)
- IT **Polyesters, uses**
RL: USES (Uses)
(**polyamide-polyether-**, blends with **polyolefins**
and **polyamides** and **polystyrenesulfonates**, with improved
antistatic and mech. properties)
- IT **Polyamides, uses**
RL: USES (Uses)
(**polyester-polyether-**, blends with **polyolefins**
and **polyamides** and **polystyrenesulfonates**, with improved
antistatic and mech. properties)
- IT **Alkenes, polymers**
RL: USES (Uses)
(polymers, blends with **poly(ether ester amides)** and **polyamides** and
polystyrenesulfonates, with improved **antistatic** and
mech. properties)
- IT **Plastics**
RL: USES (Uses)
(thermo-, blends of **polyolefins** and **poly(ether ester amides)** and
polyamides and **polystyrene sulfonates**, with improved
antistatic and mech. properties)
- IT 108-31-6D, Maleic anhydride, reaction products **polypropylene**
9002-88-4D, **Polyethylene**, maleated
9003-07-0D, **Polypropylene**, maleated 25608-26-8,
Himilan 1707 28516-43-0, Himilan 1706 143616-02-8D, maleated
RL: USES (Uses)
(**antistatic polyolefin-based thermoplastics**
contg.)
- IT 9002-88-4, **Polyethylene** 9003-07-0,
Polypropylene 9010-79-1, **Ethylene-**
propylene copolymer
RL: USES (Uses)
(blends with **poly(ether ester amides)** and **polyamides** and
polystyrenesulfonates, with improved **antistatic** and

- mech. properties)
IT 25704-18-1 29965-34-2
RL: USES (Uses)
(blends with **polyolefins** and **poly(ether ester amides)** and **polyamides**, with improved **antistatic** and mech. properties)
IT 24993-04-2 25038-54-4, Nylon 6, uses 25086-53-7, ϵ -Caprolactam-hexamethylenediamine-terephthalic acid copolymer 26375-06-4, ϵ -Caprolactam-hexamethylenediamine-isophthalic acid copolymer
RL: USES (Uses)
(blends with **polyolefins** and **poly(ether ester amides)** and **polystyrenesulfonates**, with improved **antistatic** and mech. properties)
IT 97273-63-7 117273-96-8, ϵ -Caprolactam- **polyethylene glycol-terephthalic acid** copolymer 140383-25-1
RL: USES (Uses)
(blends with **polyolefins** and **polyamides** and **polystyrenesulfonates**, with improved **antistatic** and mech. properties)

L75 ANSWER 47 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:108804 HCAPLUS
DOCUMENT NUMBER: 120:108804
TITLE: **Antistatic** agents for thermoplastic resin moldings with semipermanent **antistatic** property, good physical property, and gloss
INVENTOR(S): Watanabe, Ichiji; Nakada, Tatsuya
PATENT ASSIGNEE(S): Daicel Chem, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 05239444	A2	19930917	JP 1992-43157	19920228
PRIORITY APPLN. INFO.:			JP 1992-43157	19920228

AB **Antistatic** agents are composed of polymers obtained by treating (A) β -hydroxyalkylated **polyamides** from **polyamides** as backbone polymers and polyoxyalkylenes as

branch polymers and (B) polymers contg. OH-reactive functional groups chosen from epoxy-, oxazoline-, isocyanate-, carboxyl-, carboxyl deriv.-, **sulfonic acid-**, phosphoric acid-, and those inorg. acid deriv.-groups. Thus, 5 parts β -hydroxyalkylated **polyamide** [prepd. from 100 parts P 1022 (powd. nylon 6) and 80 parts ethylene oxide] and 5 parts epoxy-contg. styrene copolymer (prepd. from styrene 66, acrylonitrile 24, and glycidyl methacrylate 10 parts) were dry blended, kneaded, pelletized, and dried to give an **antistatic agent**, which was blended with 90 parts Duranex 400 FP [poly(butylene terephthalate)], antioxidants, and lubricants and injection molded to give a test piece showing tensile strength 480 kg/cm², tensile elongation 50%, Young's flexural modulus 20 + 1000 kg/cm², notched impact strength 6 kg-cm/cm², surface resistivity 6 + 10¹¹ (after 1 h), 5 + 10¹¹ L/cm² (after 1 mo), and good surface appearance.

IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: USES (Uses)

(**antistatic agents** for, functional group-contg. polymer- β -hydroxyalkylated **polyamide** reaction products as)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

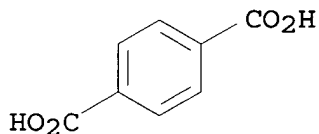
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4

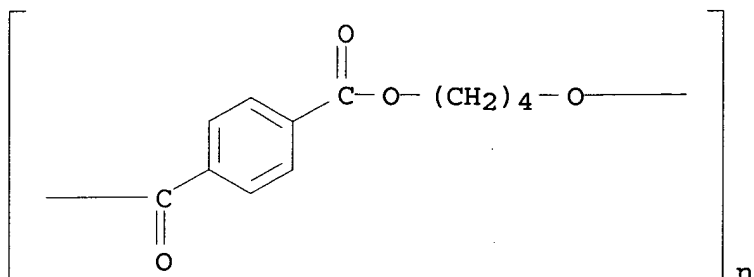


IT 24968-12-5, Poly(butylene terephthalate)

RL: USES (Uses)

(**antistatic agents** for, functional group-contg. polymer- β -hydroxyalkylated **polyamide** reaction products as, Duranex 400 FP)

RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IC ICM C09K003-16
 ICS C09K003-16
 ICA C08G081-00; C08G081-02
 CC 37-6 (Plastics Manufacture and Processing)
 ST **antistatic** agent polymer reactive; hydroxyalkylated
polyamide reactive **antistatic** agent; thermoplastic
 resin molding **antistatic** agent
 IT **Antistatic** agents
 (functional group-contg. polymer- β -hydroxyalkylated
polyamide reaction products, for thermoplastic resin
 moldings)
 IT **Polyamides**, compounds
 RL: USES (Uses)
 (ethoxylated, reaction products with functional group-contg.
 polymers, **antistatic** agents, for thermoplastic resin
 moldings)
 IT Plastics
 RL: USES (Uses)
 (thermo-, **antistatic** agents for, functional
 group-contg. polymer- β -hydroxyalkylated **polyamide**
 reaction products as)
 IT **26062-94-2**, 1,4-Butanediol-terephthalic acid copolymer
 106677-58-1, Cevian V 300
 RL: USES (Uses)
 (**antistatic** agents for, functional group-contg.
 polymer- β -hydroxyalkylated **polyamide** reaction
 products as)
 IT 24936-68-3, Iupilon S 3000, miscellaneous
 RL: MSC (Miscellaneous)
 (**antistatic** agents for, functional group-contg.
 polymer- β -hydroxyalkylated **polyamide** reaction
 products as)
 IT **24968-12-5**, Poly(butylene terephthalate)
 RL: USES (Uses)
 (**antistatic** agents for, functional group-contg.
 polymer- β -hydroxyalkylated **polyamide** reaction

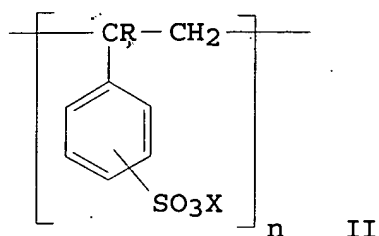
products as, Duranex 400 FP)
IT 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with ethylene oxide-nylon 6 graft copolymer 26141-88-8DP, Glycidyl methacrylate-methyl methacrylate copolymer, reaction products with ethylene oxide-nylon 6 graft copolymer 29762-66-1DP, Acrylonitrile-glycidyl methacrylate-styrene copolymer, reaction products with ethylene oxide-nylon 6 graft copolymer 30174-74-4DP, RPS 1005, reaction products with ethylene oxide-nylon 6 graft copolymer 107086-71-5DP, Ethylene oxide-nylon 6 graft copolymer, reaction products with functional group-contg. polymers
RL: PREP (Preparation)
(prepn. of, antistatic agents, for thermoplastic resin moldings)

L75 ANSWER 48 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:582159 HCAPLUS
DOCUMENT NUMBER: 119:182159
TITLE: Thermoplastic styrene polymer compositions with permanent antistatic properties
INVENTOR(S): Tanaka, Seiji; Tokuda, Takashi; Chiba, Kazumasa
PATENT ASSIGNEE(S): Toray Industries, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05093118	A2	19930416	JP 1991-148699	19910620
JP 2993183	B2	19991220	JP 1991-148699	19910620

PRIORITY APPLN. INFO.: JP 1991-148699

GI



- AB Title compns. giving moldings with good appearance contain 100 parts 10/90-99/1 mixts. of thermoplastic styrene (I) polymers and **poly(ether ester amides)** and 0.01-50 parts **styrenesulfonic acids** II (R = H, alkyl, aryl; X = H, alkali metal, alk. earth metal, NH₄; n = 1-20,000). Thus, 50 parts of a powd. graft copolymer prepd. from 90 parts of a mixt. contg. Me methacrylate 72, I 24, and acrylonitrile 4% and 10 part solids polybutadiene latex, 50 parts 30:14.2:58.6 ω-aminodecanoic acid-dodecanedioic acid- **polyethylene glycol** copolymer and 0.1 part poly(ammonium styrenesulfonate) were injection-molded at 220° into a 2-mm disk, which showed good appearance and surface resistivity 3 + 10¹⁰ Ω initially 1 + 10⁹ Ω after washing with an aq. detergent.
- IC ICM C08L025-02
ICS C08K005-42; C08L025-02; C08L051-04; C08L055-02; C08L077-12; C09K003-16
- ICI C08L025-02, C08L025-18, C08L077-12; C08L055-02, C08L077-12, C08L025-18
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39
- ST styrene thermoplastic polymer blend **antistatic**; permanent **antistatic** thermoplastic resin; polyether ester amide blend **antistatic**; **polyester polyamide** polyether blend **antistatic**; polyammonium styrenesulfonate blend **antistatic**
- IT Plastics
RL: USES (Uses)
(blends of styrene thermoplastic polymers and **poly(ether ester amides)** and **styrenesulfonic acid** polymers, with permanent **antistatic** properties)
- IT **Antistatic agents**
(**styrenesulfonic acids** and polyether-**polyester-polyamides**, for styrene polymers)
- IT Polyethers, preparation
RL: PREP (Preparation)
(**polyamide-polyester-**, prepn. of, blends with styrene thermoplastic polymers and **styrenesulfonic acid** polymers, with permanent **antistatic** properties)

- IT **Polyesters, preparation**
RL: PREP (Preparation)
(polyamide-polyether-, prepn. of, blends with styrene thermoplastic polymers and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT **Polyamides, preparation**
RL: PREP (Preparation)
(polyester-polyether-, prepn. of, blends with styrene thermoplastic polymers and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT 9003-53-6, Polystyrene
RL: USES (Uses)
(blends with poly(ether ester amides) and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer
106974-54-3P 107592-06-3P
RL: PREP (Preparation)
(prepn. of, blends with poly(ether ester amides) and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT 55979-70-9P 62744-35-8P, Poly(sodium styrenesulfonate)
RL: PREP (Preparation)
(prepn. of, blends with styrene thermoplastic polymers and poly(ether ester amides), with permanent antistatic properties)
- IT 109214-19-9P, ω -Aminodecanoic acid-dodecanedioic acid-polyethylene glycol copolymer 117273-96-8P 140383-25-1P
RL: PREP (Preparation)
(prepn. of, blends with styrene thermoplastic polymers and styrenesulfonic acid polymers, with permanent antistatic properties)

L75 ANSWER 49 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:85698 HCAPLUS

DOCUMENT NUMBER: 116:85698

TITLE: Antistatic dyeable synthetic conjugate fibers with natural fiber-like handle

INVENTOR(S): Kawamoto, Masao; Tanaka, Kazuhiko; Hirakawa, Seiji; Takemura, Osamu

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

-----	----	-----	-----	
-------	------	-------	-------	--

-------	--	--	--	--

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

JP 03234815

A2

19911018

JP 1990-26563

199002
05

JP 2842539

B2

19990106

PRIORITY APPLN. INFO.:

JP 1990-26563

199002
05

AB The title fibers are prepd. by melt spinning together 25-70:75-30 ethylene-vinyl acetate copolymer (I) with degree of sapon. $\geq 95\%$, and a compn. contg. a crystn. thermoplastic polymer, 0.2-10% **sulfonic acid** alkali metal salts, and 0.1-1.5% polyoxyalkylene glycols at 10-90:90-10 ratio. Thus, 44:56 I with degree of sapon. 99%, and a compn. contg. PET, 6% **polyethylene glycol** (II) and 2% Na dodecylbenzenesulfonate (III) were together melt spun at 50:50 ratio, drawn, made into a woven fabric, and dyed to give a fabric with cottonlike bulk and resilience and friction-induced electrostatic charge 500 V and 500 V after 50 washings, vs. 3500 and 3800, resp., using a PET compn. contg. 0.1% II and 0.05% III.

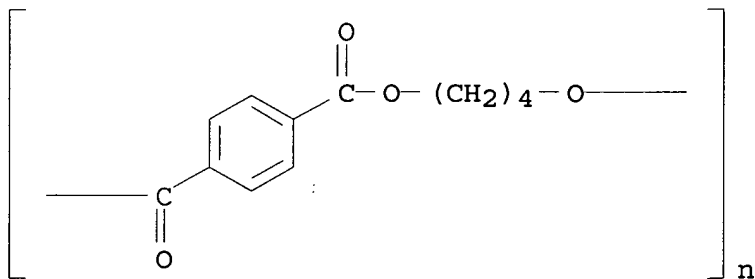
IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4, Nylon 6, miscellaneous 25038-59-9, Poly(ethylene terephthalate), miscellaneous 26062-94-2, Butylene glycol-terephthalic acid copolymer

RL: USES (Uses)

(fiber, bicomponent with ethylene-vinyl alc. copolymers, **antistatic**, with cottonlike handle)

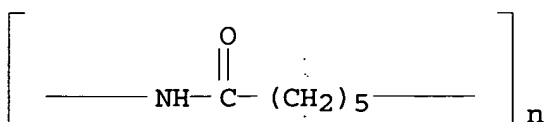
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)

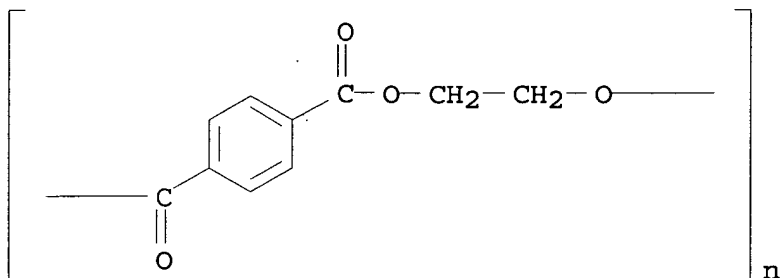


RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

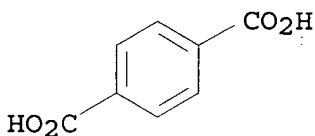
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



IC ICM D01F008-10
 ICS D01D005-30; D01F001-09; D01F006-30; D01F006-34; D01F008-04;
 D01F008-14
 CC 40-2 (Textiles and Fibers)
 ST antistatic cottonlike synthetic fiber; ethylene copolymer
 polyester conjugate fiber; nylon ethylene copolymer
 conjugate fiber; polyoxyethylene contg synthetic fiber
 antistatic; dodecylbenzenesulfonate contg synthetic fiber
 antistatic

- IT Sulfonates
RL: USES (Uses)
(antistatic agents, with polyoxyalkylenes, for synthetic conjugate fibers)
- IT Polyoxyalkylenes, uses
RL: USES (Uses)
(antistatic agents, with sulfonic acid salts, for synthetic conjugate fibers)
- IT Polyamide fibers, preparation
Polyester fibers, preparation
RL: PREP (Preparation)
(bicomponent with ethylene-vinyl alc. copolymer fibers, contg. sulfonates and polyoxyalkylenes, antistatic, with cottonlike handle)
- IT Antistatic agents
(sulfonic acid salts /polyoxyalkylenes, for synthetic conjugate fibers)
- IT Polyester fibers, preparation
RL: PREP (Preparation)
(butanediol-terephthalic acid, bicomponent with ethylene-vinyl alc. copolymer fibers, contg. sulfonates and polyoxyalkylenes, antistatic, with cottonlike handle)
- IT Polyolefin fibers
Vinal fibers
RL: USES (Uses)
(ethylene-vinyl alc., bicomponent with crystn. thermostatic polymers, contg. sulfonates and polyoxyalkylenes, antistatic, with cottonlike handle)
- IT 25155-30-0, Sodium dodecylbenzenesulfonate
RL: USES (Uses)
(antistatic agents, with polyoxyalkylenes, for synthetic conjugate fibers)
- IT 9003-11-6, Ethylene oxide-propylene oxide copolymer 25322-68-3, Polyethylene glycol
RL: USES (Uses)
(antistatic agents, with sulfonic acid salts, for synthetic conjugate fibers)
- IT 25067-34-9, Ethylene-vinyl alcohol copolymer
RL: USES (Uses)
(fiber, bicomponent with crystn. polymer, antistatic, with cottonlike handle)
- IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4, Nylon 6, miscellaneous 25038-59-9, Poly(ethylene terephthalate), miscellaneous 26062-94-2, Butylene glycol-terephthalic acid copolymer
RL: USES (Uses)
(fiber, bicomponent with ethylene-vinyl alc. copolymers, antistatic, with cottonlike handle)
- IT 9002-89-5
RL: USES (Uses)
(vinal fibers, ethylene-vinyl alc., bicomponent with crystn. thermostatic polymers, contg. sulfonates and polyoxyalkylenes,

antistatic, with cottonlike handle)

L75 ANSWER 50 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1991:681960 HCAPLUS
 DOCUMENT NUMBER: 115:281960
 TITLE: Aromatic polyester fibers and agents
 for antistatic and hydrophilic
 treatment and soilproofing
 INVENTOR(S): Suzuki, Motoyoshi; Mori, Shigeo; Nakajo, Noboru
 PATENT ASSIGNEE(S): Teijin Ltd., Japan; Daiichi Kogyo Seiyaku Co.,
 Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03182546	A2	19910808	JP 1989-320599	198912 12
JP 07103301	B4	19951108	JP 1989-320599	198912 12

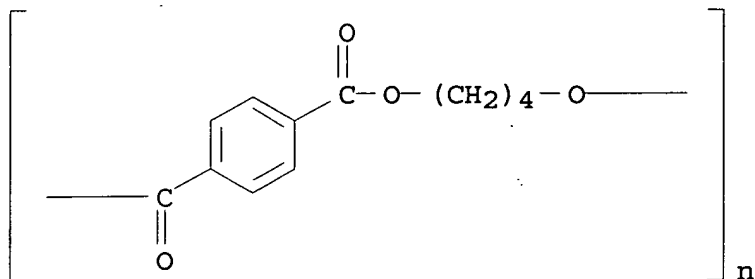
PRIORITY APPLN. INFO.: JP 1989-320599

AB The agents with good washfastness comprise a water-insol. polyether polyol (A) having mol. wt. 5000-16,000, non-reactive org. sulfonic acid salts, and phosphite antioxidants, where A is the compd. $Z[(CH_2CH_2O)_l(Z1O)_mR1]_k$ (Z = initiator with 1-6 active H atoms; k = 1-6; Z1 = C₆ (unsubstituted) alkylene; R1 = H, C1-4 hydrocarbyl; C2-40 acyl; l = integer derived from k + l ≥ 70; m ≥ 1), which has, when k is 1, the product (P) of [mxZ1O mol. wt. + R1 mol. wt.]/441 being 0.4-3.0, and when k is 2-6, P being 0.23-3.0 for good title properties. Thus, PET was combined, at its transesterification stage during manuf., with stabilizers, and 0.2% (based on PET) of an A, i.e. HO[CH(R)CH₂O]_m(CH₂CH₂O)_l[CH₂CH(R)O]_mH (R = C_jH_{2j+1}; j = 14-16, av. 15; av. l = 180, av. m = 10; mol. wt. 13,018), followed by post polymn., addn. with Irganox 1010, and pelletizing. The pellets were then spun to give fibers, fabrics from which showed excellent antistatic property, water absorption, and soilproofing property.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2
 , Poly(butylene terephthalate)
 RL: USES (Uses)
 (fibers, antistatic, hydrophilizing and soilproofing agents for)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4

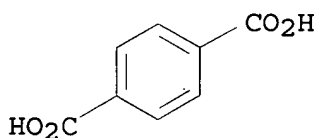
CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02

ICS C08K005-42; C08K005-524; C08L071-02; D01F006-62; D01F006-92;
D01F008-14

CC 40-2 (Textiles and Fibers)

Section cross-reference(s): 37

ST **polyester** fabric soilproofing agent polyether;
hydrophilizing agent polyether polyol fabric; **antistatic**
agent polyether polyol fabric; phosphite antioxidant
polyester fiber

IT Polyoxyalkylenes, uses and miscellaneous
RL: USES (Uses)

- (antistatic, hydrophilizing and soilproofing compns. contg., water-insol., for textiles)
- IT Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fabrics, antistatic, hydrophilizing and soilproofing agents for)
- IT Antioxidants
(for polyester fibers, org. phosphite esters and sulfonic acid salts as)
- IT Antistatic agents
(for polyester fibers, polyoxyalkylene polyols as)
- IT Soilproofing
(agents, for polyester fibers, polyoxyalkylene polyols as)
- IT Sulfonic acids, compounds
RL: USES (Uses)
(alkane, sodium salts, antistatic, hydrophilizing and soilproofing compns. contg., water-insol., for textiles)
- IT 75-21-8D, Oxirane, polymers with alkylene oxides, polyol derivs.
111503-99-2
RL: USES (Uses)
(antistatic, hydrophilizing and soilproofing compns. contg., water-insol., for textiles)
- IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2
, Poly(butylene terephthalate)
RL: USES (Uses)
(fibers, antistatic, hydrophilizing and soilproofing agents for)
- IT 2082-79-3, Irganox 1076 3806-34-6 6683-19-8, Irganox 1010
13003-12-8, 4,4'-Butylidenebis(3-methyl-6-tert-butylphenyl
ditridecylphosphite 13598-36-2D, Phosphorous acid, esters
25417-20-3, Sodium dibutyl-naphthalenesulfonate 29062-27-9, Lithium
dodecylbenzenesulfonate 31570-04-4, Tris(2,4-di-tert-
butylphenyl)phosphite 39045-67-5 40601-76-1 68457-45-4
80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol
diphosphite 94248-46-1 137222-69-6 137741-38-9
RL: USES (Uses)
(oxidants, with polyether polyol antistatic,
hydrophilizing and soilproofing agents, for fabric)

L75 ANSWER 51 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:610305 HCAPLUS
DOCUMENT NUMBER: 115:210305
TITLE: Preparation and uses of primed acrylic polymer
films
INVENTOR(S): Hart, Charles Richard
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 429179	A2	19910529	EP 1990-311558	199010 22
EP 429179	A3	19920603		
EP 429179	B1	19950517		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AU 9064711	A1	19910516	AU 1990-64711	199010 19
AU 622355	B2	19920402		
ES 2071781	T3	19950701	ES 1990-311558	199010 22
CA 2028316	AA	19910508	CA 1990-2028316	199010 23
ZA 9008524	A	19911030	ZA 1990-8524	199010 24
BR 9005614	A	19910917	BR 1990-5614	199011 06
JP 03227626	A2	19911008	JP 1990-299086	199011 06
JP 3048622	B2	20000605		
CN 1051570	A	19910522	CN 1990-108938	199011 07
CN 1033516	B	19961211		
KR 149666	B1	19981001	KR 1990-17942	199011 07
US 5906888	A	19990525	US 1995-456617	199506 01
PRIORITY APPLN. INFO.:			GB 1989-25095	A 198911 07
			GB 1990-23090	199010 24
			US 1990-608399	B1 199011 02

US 1992-935660

B1

199208
26

AB Films useful for metalization, drafting, photog., and magnetic cards are primed with copolymers of alkyl acrylates 35-40, alkyl methacrylates 35-40, unsatd. carboxylic acids 10-15, and arom. **sulfonic acid** and/or its salt 15-20 mol%. Thus, an oriented PET film was coated with a mixt. of 35:15:35:15 Et acrylate-itaconic acid-Me methacrylate-**p-styrenesulfonic acid** copolymer 3, surfactant 0.03, melamine resin 0.3, and p-MeC₆H₄SO₃NH₄ 0.03% dried, biaxially oriented, and heat-set at 220° to give a film with satisfactory cellulose acetate butyrate lacquer and gelatin adhesion and surface resistivity 9.9 Ω/square; vs. unsatisfactory and ≥19, resp., with no primer.

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9
25038-59-9, Poly(ethylene terephthalate), uses and miscellaneous

RL: USES (Uses)

(films, **antistatic** primers for, acrylic polymers as)

RN 9020-32-0 HCAPLUS

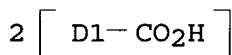
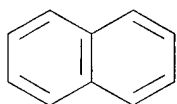
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

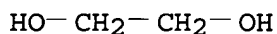
CCI IDS



CM 2

CRN 107-21-1

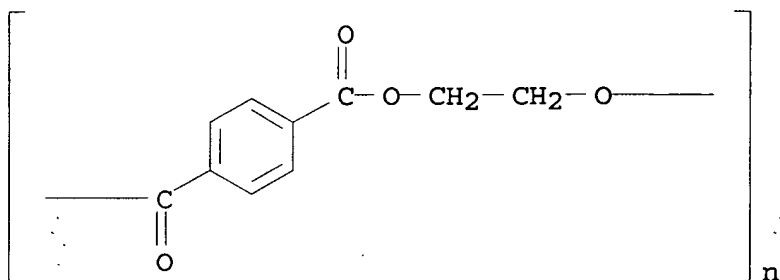
CMF C2 H6 O2



RN 9020-73-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
 (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 25038-59-9 HCAPLUS
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IC ICM C08J007-04
 ICS C09D133-06
 CC 42-7 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 74
 ST **polyester** film polyacrylate primer; methacrylate primer
 plastic film; itaconic acid copolymer primer; styrenesulfonate
 copolymer primer; magnetic card film primer; photog film primer;
 primer plastic film; acrylate polymer primer film
 IT Photographic films
 (antistatic coatings for)
 IT **Antistatic agents**
 (carboxyl- and sulfo group-bearing acrylic polymers, for plastic
 films)
 IT **Polyesters**, uses and miscellaneous
 RL: USES (Uses)
 (films, **antistatic** primers for, acrylic polymers as)
 IT Coating materials
 (antistatic, primers, acrylic polymers bearing carboxy
 and sulfo groups, for plastic films)
 IT Recording apparatus
 (magnetic, cards, **antistatic** coatings for)
 IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9
 25038-59-9, Poly(ethylene terephthalate), uses and
 miscellaneous
 RL: USES (Uses)
 (films, **antistatic** primers for, acrylic polymers as)
 IT 24980-96-9, Ethyl acrylate-itaconic acid-methyl methacrylate
 copolymer 136821-10-8 136837-50-8
 RL: USES (Uses)
 (primers, **antistatic**, for plastic films)

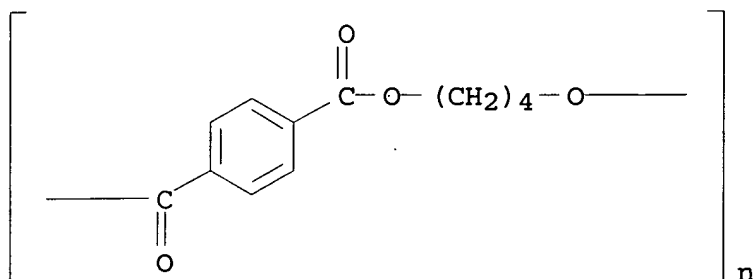
L75 ANSWER 52 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:460676 HCAPLUS
 DOCUMENT NUMBER: 113:60676
 TITLE: Polymer composition containing alkanesulfonate salts with improved tracking index and antistatic properties
 INVENTOR(S): Tabankia, Farshid M. H.; De Boer, Jan
 PATENT ASSIGNEE(S): General Electric Co., USA
 SOURCE: Eur. Pat. Appl., 5 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 357896	A1	19900314	EP 1989-111384	19890622
R: DE, ES, FR, GB, IT, NL				
NL 8802046	A	19900316	NL 1988-2046	19880818
US 4965338	A	19901023	US 1989-391005	19890809
JP 02110159	A2	19900423	JP 1989-209738	19890815
PRIORITY APPLN. INFO.:			NL 1988-2046	A 19880818

AB A polymer mixt., comprising an arom. polyester, e.g., poly(butylene terephthalate) (I), 1-10 phr alkanesulfonate salt, and optionally, an arom. polycarbonate and stabilizers, exhibits high tracking index and good antistatic properties. Thus, I 100, C12-20 alkanesulfonate salt 4.2, and a mixt. of conventional stabilizers 0.15 wt. parts were mixed, extruded, pelletized, and injection-molded to give specimens showing sheet resistance 1010 Ω /sq, comparative tracking index 550 V, notch impact value 51 J/m, and elongation at fracture 162%, compared with 1014, 450, 49, and 69, resp., for a similar compn. without the alkanesulfonate salt.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2, Poly(butylene terephthalate)
 RL: USES (Uses)
 (blends with alkanesulfonate salts, with improved tracking index and antistatic properties)

RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

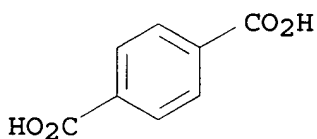
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4



IC ICM C08K005-42
 ICS C08L067-02; C09K003-16
 CC 37-6 (Plastics Manufacture and Processing)
 ST **polyester** alkanesulfonate salt blend **antistatic**;
 polycarbonate **polyester**; elec property **polyester**
 alkanesulfonate salt blend
 IT **Antistatic agents**
 (alkanesulfonate salts, for **polyesters**)
 IT **Polyesters**, uses and miscellaneous
 RL: USES (Uses)

(blends with alkanesulfonate salts, with improved tracking index and antistatic properties)

IT Sulfonic acids, compounds
RL: USES (Uses)
(C12-20-alkane, sodium salts, antistatic additives, for polyester compns.)

IT Polycarbonates, uses and miscellaneous
RL: USES (Uses)
(bisphenol-based, blends with polyesters and alkanesulfonate salts, with improved antistatic properties and tracking index)

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2
, Poly(butylene terephthalate)
RL: USES (Uses)
(blends with alkanesulfonate salts, with improved tracking index and antistatic properties)

L75 ANSWER 53 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:575501 HCAPLUS

DOCUMENT NUMBER: 111:175501

TITLE: Antistatic synthetic polymer compositions

INVENTOR(S): Goto, Shinya; Fujioka, Hideaki

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01054068	A2	19890301	JP 1987-209730	19870824
JP 06076555	B4	19940928	JP 1987-209730	19870824

PRIORITY APPLN. INFO.: JP 1987-209730

AB The title compns. contain 100 parts synthetic polymers and 0.5-5.0 parts antistatic agents contg. (50-95):(50-5) mixts. of (A) salts of C10-18 alkanesulfonic acids or of (C10-18 alkyl)benzenesulfonic acids as an anionic surfactant and (B) polyolefin waxes, citrate esters, montanic acid, and/or montan wax as a dispersant. Thus, 100 parts poly(butylene terephthalate) (I) was mixed with 2 parts of an antistatic agent contg. 85% Na alkanesulfonate [II; prepd. by sulfonation of a C10-18 (av. 14) paraffin mixt. followed by neutralizing] and 15% polyethylene wax (mol. wt. 1500),

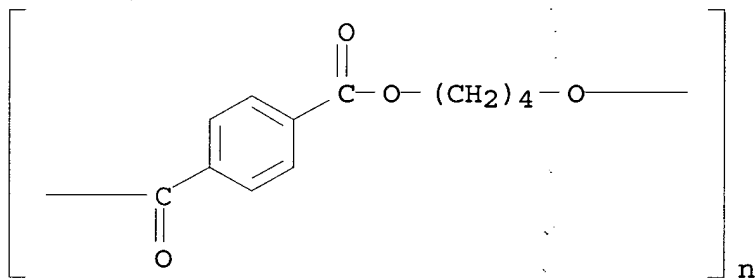
extruded, and injection-molded at 220-250° into a 3-mm plate, which showed no discoloration and white color after being kept at 220° in an oven for 30 min, compared with discoloration and a pale yellow color for a control contg. 100 parts I and 2 parts II. The plate also showed surface resistivity $\leq 1 \times 10^{12}$ Ω after being kept at 25° and 50% relative humidity for 24 h.

IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4
 , Nylon 6, uses and miscellaneous 25038-59-9,
 Poly(ethylene terephthalate), uses and miscellaneous
 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
 RL: USES (Uses)

(antistatic agents for, anionic surfactant and
 dispersing agents as)

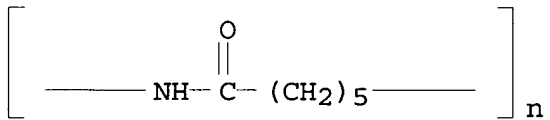
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



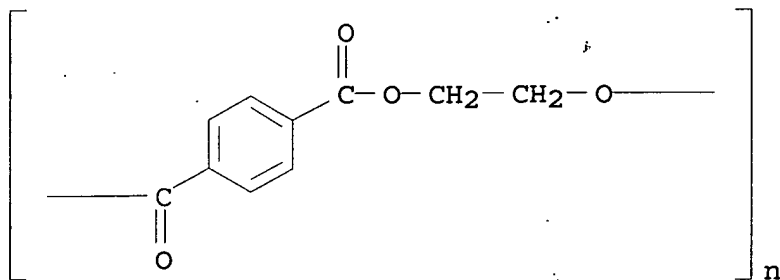
RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

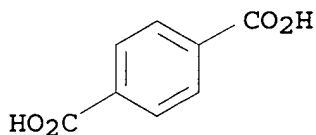
CM 1

CRN 110-63-4
 CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0
 CMF C8 H6 O4

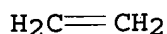


IT 9002-88-4, Polyethylene 9003-07-0,
 Polypropylene
 RL: USES (Uses)
 (wax, dispersants, antistatic agents contg. anionic
 surfactants and, for polymers)

RN 9002-88-4 HCAPLUS
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

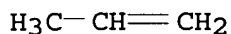
CRN 74-85-1
 CMF C2 H4



RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1
CMF C3 H6



IC ICM C08L101-00
ICS C08K005-10; C08K005-42
CC 37-6 (Plastics Manufacture and Processing)
ST **polybutylene terephthalate antistatic**
agent; alkanesulfonate salt **antistatic** agent; anionic
surfactant **antistatic** agent; dispersant blend polymer
antistatic agent; alkylbenzenesulfonate anionic surfactant
antistatic agent; **antistatic** agent dispersant
surfactant blend
IT Polycarbonates, uses and miscellaneous
Polyesters, uses and miscellaneous
RL: USES (Uses)
(**antistatic** agents for, anionic surfactant and
dispersing agents as)
IT Polymers, uses and miscellaneous
RL: USES (Uses)
(**antistatic** agents for, anionic surfactants and
dispersing agents as)
IT Montan wax
RL: USES (Uses)
(dispersants, **antistatic** agents contg. anionic
surfactants and, for polymers)
IT **Antistatic** agents
(for polymers, anionic surfactants and dispersants as)
IT Dispersing agents
(**polyolefin** waxes and citrate esters and montanic acid
and montan wax, **antistatic** agents contg. for polymers)
IT Surfactants
(anionic, alkanesulfonates or alkylbenzenesulfonates,
antistatic agents contg., for polymers)
IT 25155-30-0, Sodium dodecylbenzenesulfonate
RL: USES (Uses)
(anionic surfactants, **antistatic** agents contg.
dispersants and, for polymers)
IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4
, Nylon 6, uses and miscellaneous 25038-59-9,
Poly(ethylene terephthalate), uses and miscellaneous

26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: USES (Uses)

(antistatic agents for, anionic surfactant and dispersing agents as)

IT 506-48-9, Montanic acid 29589-99-9, Distearyl citrate 93776-47-7

RL: USES (Uses)

(dispersants, antistatic agents contg. anionic surfactants and, for polymers)

IT 9002-88-4, Polyethylene 9003-07-0,

Polypropylene

RL: USES (Uses)

(wax, dispersants, antistatic agents contg. anionic surfactants and, for polymers)

L75 ANSWER 54 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:197608 HCAPLUS

DOCUMENT NUMBER: 106:197608

TITLE: Antistatic polyester

compositions

INVENTOR(S): Yonetani, Kiichi; Okita, Kiyomi; Kotani,

Noriyoshi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 61258860	A2	19861117	JP 1985-99590	19850513
JP 06004757	B4	19940119		
PRIORITY APPLN. INFO.:			JP 1985-99590	19850513

AB The title compns. with excellent mech. properties are manufd. by melt mixing with a screw extruder (A) 100 parts arom. polyester, (B) 0.05-15 parts (modified) alkylene glycol polymer, (C) 0.01-5 parts metal salt of R(SO₃H)_n (R = C₆-60 org. groups; n = 1-4), (D) 3-100 parts inorg. filler, and (E) 0-50 parts org. Br compds.; the polyester and inorg. filler were blended and then blended with the (modified) alkylene glycol polymers. Poly(butylene terephthalate) 100, glass fiber 50, and Na dodecylbenzenesulfonate 0.1 part were melt mixed, pelletized with a 250° screw extruder, and combined with 5 parts polyethylene glycol; repeating the procedure and injection molding at 250° gave test pieces which had surface

resistivity $3.6 + 10^{12} \Omega$, half value period 34 s,
tensile strength 1300 kg/cm², elongation 3.6% and Izod impact
strength 6.4 kg-cm/cm, vs. $4.7 + 10^{12}$, 35, 920, 2.6, and 5.2,
resp., for a control prep. similarly but by melt extrusion in one
step.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2

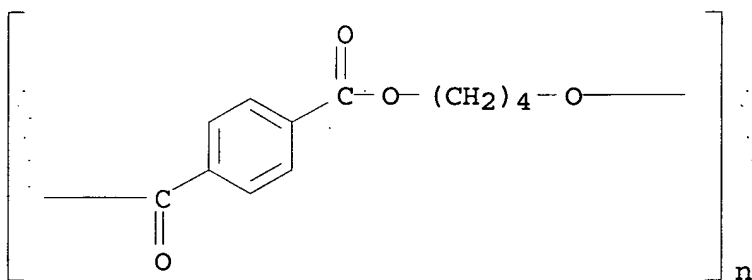
, 1,4-Butanediol-terephthalic acid copolymer

RL: USES (Uses)

(alkylene glycol polymer blends, by melt extrusion in two steps,
antistatic)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
INDEX NAME)



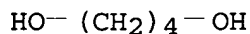
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 110-63-4

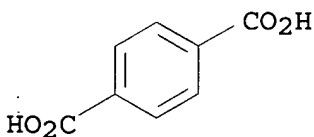
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02
ICS C08K013-02
ICI C08L067-02, C08L071-02; C08K013-02, C08K005-42, C08K003-00;
C08K013-02, C08K005-42, C08K003-00, C08K005-00
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
ST **antistatic polyester polyethylene**
glycol blend; tensile strength **polyester** blend
antistatic; melt extrusion **polyester** blend
antistatic
IT Plastics, extruded
RL: USES (Uses)
(**polyester**-alkylene glycol polymer blends, contg. metal
sulfonate, **antistatic**)
IT **Sulfonic acids**, compounds
RL: USES (Uses)
(alkane, sodium salts, **polyester**-alkylene glycol
polymer blends, by two-step melt mixing, **antistatic**)
IT **Polyesters**, uses and miscellaneous
RL: USES (Uses)
(arom., alkylene glycol polymer blends, by melt extrusion in two
steps, **antistatic**)
IT Extrusion of plastics and rubbers
(melt, screw, of **polyester**-alkylene glycol
polymer-metal sulfonate blends, by two-step melt mixing,
antistatic)
IT Polyoxyalkylenes, uses and miscellaneous
RL: USES (Uses)
(**polyamide**-, arom. **polyester** blends, by melt
extrusion in two steps, **antistatic**)
IT Polyoxyalkylenes, uses and miscellaneous
RL: USES (Uses)
(**polyester**-, arom. **polyester** blends, by melt
extrusion in two steps, **antistatic**)
IT **Polyamides**, uses and miscellaneous
Polyesters, uses and miscellaneous
RL: USES (Uses)
(polyoxyalkylene-, arom. **polyester** blends, by melt
extrusion in two steps, **antistatic**)
IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2
, 1,4-Butanediol-terephthalic acid copolymer
RL: USES (Uses)
(alkylene glycol polymer blends, by melt extrusion in two steps,
antistatic)
IT 25322-68-3, Poly(ethylene glycol) 25322-69-4, Poly(
propylene glycol) 25767-68-4 26403-72-5, Poly(ethylene
glycol) diglycidyl ether 30497-78-0
RL: USES (Uses)
(arom. **polyester** blends, by melt extrusion in two
steps, **antistatic**)
IT 25155-30-0, Sodium dodecylbenzenesulfonate
RL: USES (Uses)

(polyester-alkylene glycol polymer blends, by two-step melt mixing, antistatic)

L75 ANSWER 55 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:596866 HCAPLUS
DOCUMENT NUMBER: 103:196866
TITLE: Antistatic agents for synthetic polymers
PATENT ASSIGNEE(S): Takemoto Oil and Fat Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60094432	A2	19850527	JP 1983-203385	19831029
JP 04000098	B4	19920106	JP 1983-203385	19831029

PRIORITY APPLN. INFO.: JP 1983-203385

AB Antistatic agents having excellent thermal stability and miscibility with polymers comprise alkali metal alkylarenesulfonates and nonionic surfactants prepd. by the alkoxylation of hydroxy or carboxy compds. contg. ≥ 7 C. Thus, a mixt. of poly(Me methacrylate) (I) [9011-14-7] 95, glycerol monolaurate polyoxyethylene ether [51158-08-8] 4, and Li dodecylbenzenesulfonate [29062-27-9] 1% gave moldings having surface resistivity $3 + 10^{10} \Omega$, good retention of antistatic properties during >30 days at 80°, and no effect on the color and transparency of I.

IT 9002-88-4 26062-94-2

RL: USES (Uses)

(antistatic agents for, anionic and nonionic surfactants as)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H₂C=CH₂

RN 26062-94-2 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

CM 1

CRN 110-63-4

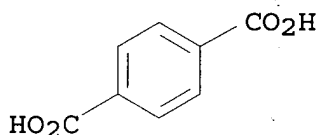
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

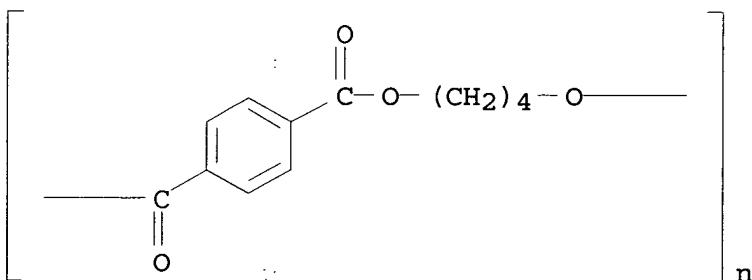
CRN 100-21-0

CMF C8 H6 O4



IT 24968-12-5
 RL: PRP (Properties)
 (antistatic agents for, anionic and nonionic
 surfactants as)

RN 24968-12-5 HCAPLUS
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IC ICM C08K005-04
 ICS C08K005-42; C09K003-16
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 46
 ST antistatic agent surfactant polymer; anionic surfactant

antistatic agent; nonionic surfactant antistatic agent; polymethyl methacrylate antistatic agent

IT Antistatic agents
(alkali metal alkylarenesulfonate-polyoxyalkylene deriv. mixts., for polymers)

IT Polyesters, uses and miscellaneous
RL: USES (Uses)
(antistatic agents for, anionic and nonionic surfactants as)

IT Polyoxyalkylenes
RL: USES (Uses)
(derivs., antistatic agents, for polymers)

IT Sulfonic acids, compounds
RL: USES (Uses)
(alkylarene, alkali metal salts, antistatic agents, for polymers)

IT Surfactants
(anionic, antistatic agents, for polymers)

IT Surfactants
(nonionic, antistatic agents, for polymers)

IT 9002-86-2 9002-88-4 26062-94-2 51158-08-8
RL: USES (Uses)
(antistatic agents for, anionic and nonionic surfactants as)

IT 9003-53-6 9011-14-7 24968-12-5
RL: PRP (Properties)
(antistatic agents for, anionic and nonionic surfactants as)

IT 9002-92-0 9004-81-3 9005-64-5 25155-30-0 25322-68-3D,
sec-C13-14 alkyl ethers 29062-27-9 85409-94-5 94275-81-7
99143-25-6 99143-26-7 99149-57-2 99240-74-1
RL: USES (Uses)
(antistatic agents, for polymers)

L75 ANSWER 56 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:193039 HCAPLUS

DOCUMENT NUMBER: 100:193039

TITLE: Thermoplastic polyester compositions

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59018751	A2	19840131	JP 1982-128083	198207 22

PRIORITY APPLN. INFO.:

JP 1982-128083

198207

22

AB Thermoplastic products having excellent **antistatic** and vibration damping characteristics are fabricated from compns. of **polyesters** comprising 1,4-butanediol (I), dodecanedioic acid (II), terephthalic acid (III), and, optionally, other monomer residues 100, polyalkylene glycol derivs. 0.01-40, and metal salts of arom. **sulfonic acids** 0.01-10 parts. Thus, 100:10:90 mol ratio I-II-III copolymer (IV) [61778-68-5] 100, polybutylene glycol [25190-06-1] 2, and sodium dodecylbenzenesulfonate [25155-30-0] 1 part were combined, pelletized, and injection molded into gears or extruded into friction plates which had surface resistivity $7 + 10^{10}$ and $6 + 10^{10} \Omega$, and noise levels 40 and 50 dB, resp., when turned at fixed speeds, compared with $3 + 10^{16}$ and $3 + 10^{16} \Omega$, and 45 and 55 dB, resp., for the same parts made of IV alone.

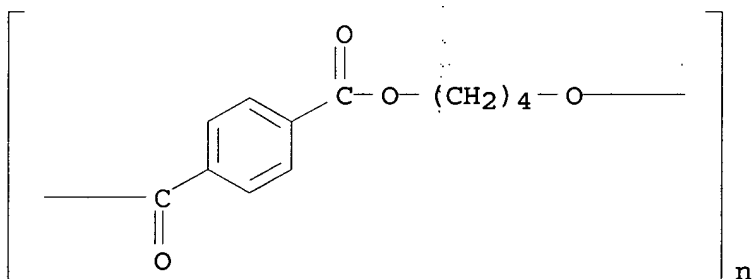
IT 24968-12-5 26062-94-2

RL: USES (Uses)

(polyester-polyether blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

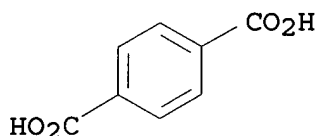
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC C08L067-02; C08K005-42
 ICI C08L067-02, C08L071-02
 CC 37-6 (Plastics Manufacture and Processing)
 ST **antistatic** vibration damping **polyester** molding;
 extrudate **polyester antistatic** vibration
 damping; sound damping **antistatic polyester**
 molding; polyoxybutylene **polyester** blend molding;
 benzenesulfonate salt **polyester** molding; butanediol
 dodecanedioic terephthalic acid terpolymer
 IT **Antistatic agents**
 (arom. sulfonate salts, for butanediol-dodecanedioic
 acid-terephthalic acid copolymer blends with polyoxyalkylene
 derivs.)
 IT **Polyesters, uses and miscellaneous**
 RL: USES (Uses)
 (blends with polyoxyalkylene derivs., contg. arom. sulfonate
 salts, moldings, **antistatic**, vibration-damping)
 IT Plastics, extruded
 Plastics, molded
 RL: USES (Uses)
 (butanediol-dodecanedioic acid-terephthalic acid copolymer blends
 with polyoxyalkylene derivs., contg. arom. sulfonate salts,
antistatic, vibration-damping)
 IT **Sulfonic acids, compounds**
 RL: USES (Uses)
 (arene, metal salts, butanediol-dodecanedioic acid-terephthalic
 acid copolymer blends contg., moldings, **antistatic**,
 vibration-damping)
 IT Polyethers
 RL: USES (Uses)
 (**polyamide-**, butanediol-dodecanedioic acid-terephthalic
 acid copolymer blends, contg. arom. sulfonate salts, moldings,
antistatic, vibration-damping)
 IT Polyethers
 RL: USES (Uses)
 (**polyester-**, butanediol-dodecanedioic acid-terephthalic
 acid copolymer blends, contg. arom. sulfonate salts, moldings,
antistatic, vibration-damping)
 IT **Polyamides, uses and miscellaneous**

Polyesters, uses and miscellaneous

RL: USES (Uses)

(polyether-, butanediol-dodecanedioic acid-terephthalic acid copolymer blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

IT 61778-68-5

RL: USES (Uses)

(blends with polyoxyalkylene derivs., contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

IT 25190-06-1 39409-99-9 76309-19-8

RL: USES (Uses)

(butanediol-dodecanedioic acid-terephthalic acid copolymer blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

IT 25155-30-0

RL: USES (Uses)

(polyester blends contg., moldings, **antistatic**, vibration-damping)

IT 24968-12-5 26062-94-2

RL: USES (Uses)

(polyester-polyether blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

L75 ANSWER 57 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1982:407286 HCAPLUS

DOCUMENT NUMBER: 97:7286

TITLE: Molded **polyesters**

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57005748	A2	19820112	JP 1980-81109	19800616
JP 63018619	B4	19880419		
PRIORITY APPLN. INFO.:			JP 1980-81109	A 19800616

AB Compns. contg. a thermoplastic **polyester**, a polyalkylene glycol or its deriv. and a **sulfonic acid salt** as **antistatic** agents, and graphite, MoS₂, or graphite fluoride are useful for the manuf. of sliding parts for machines. Thus, a poly(butylene terephthalate) (I) [26062-94-2] compn. contg. adipic acid-ε-caprolactam-

hexamethylenediamine-polyethylene glycol copolymer
 [76309-19-8] 2, Na dodecylbenzenesulfonate [25155-30-0] 1, and
 graphite 3% was pelletized and injection molded to give a product
 with surface elec. resistance $2 + 10^{12} \Omega$, compared with
 $3 + 10^{16} \Omega$ for a product molded from I only.

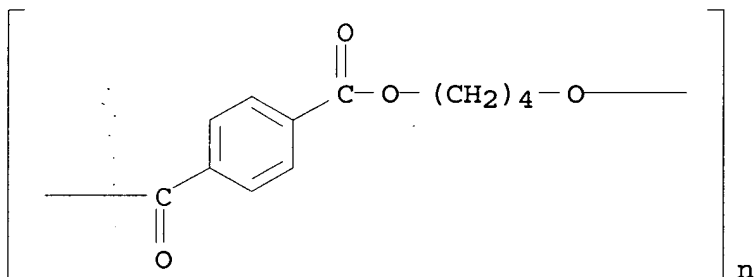
IT 24968-12-5

RL: USES (Uses)

(antistatic agents, contg. sodium
 dodecylbenzenesulfonate, polyester molding compns.
 contg. antifriction materials and)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA
 INDEX NAME)



IT 26062-94-2

RL: USES (Uses)

(molding compns, contg. antistatic agents and
 antifriction materials)

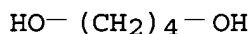
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA
 INDEX NAME)

CM 1

CRN 110-63-4

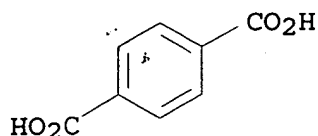
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC C08L067-02; C08K003-04; C08K003-30; C08K005-42
 CC 37-6 (Plastics Manufacture and Processing)
 ST **polybutylene terephthalate** molding
antistatic; polyester molding **antistatic**
 ; sliding part **polyester** molding; graphite
polyester molding sliding part; molybdenum disulfide
polyester molding; fluoride graphite **polyester**
 molding; antifriction material **polyester** molding
 IT Antifriction materials
 (graphite, molybdenum disulfide or graphite fluoride,
polyester molding compns. contg. **antistatic**
 agents and)
 IT Electric apparatus
 (parts for, manuf. of, from poly(butylene terephthalate) compns.
 contg. **antistatic** agents and antifriction materials)
 IT **Antistatic** agents
 (polyether-sodium dodecylbenzenesulfonate, **polyester**
 molding compns. contg. antifriction materials and)
 IT Machinery
 (sliding parts for, manuf. of, poly(butylene terephthalate)
 molding compns. contg. **antistatic** agents and
 antifriction materials for)
 IT **Polyesters**, uses and miscellaneous
 RL: USES (Uses)
 (butanediol-terephthalic acid, molding compns., contg.
 polyether-sodium dodecylbenzenesulfonate **antistatic**
 agents and antifriction materials)
 IT **Polyamides**, uses and miscellaneous
Polyesters, uses and miscellaneous
 RL: USES (Uses)
 (polyether-, **antistatic** agents, contg. sodium
 dodecylbenzenesulfonate, **polyester** molding compns.
 contg. antifriction materials and)
 IT 1317-33-5, uses and miscellaneous 7782-42-5, uses and
 miscellaneous 11113-63-6
 RL: USES (Uses)
 (antifriction materials, **antistatic polyester**
 molding compns. contg.)
 IT 25155-30-0
 RL: USES (Uses)
 (**antistatic** agents, contg. polyalkylene glycol derivs,
polyester molding compns. contg. antifriction materials
 and)
 IT 39409-99-9
 RL: USES (Uses)

(antistatic agents, contg. sodium
dodecylbenzenesulfonate, **polyester** molding compns.
antifriction materials and)

IT 24968-12-5 76309-19-8

RL: USES (Uses)

(antistatic agents, contg. sodium
dodecylbenzenesulfonate, **polyester** molding compns.
contg. antifriction materials and)

IT 26062-94-2

RL: USES (Uses)

(molding compns, contg. **antistatic** agents and
antifriction materials)

L75 ANSWER 58 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1979:492896 HCAPLUS

DOCUMENT NUMBER: 91:92896

TITLE: **Antistatic polyester fibers**

INVENTOR(S): Funakoshi, Wataru; Nawata, Kiyoshi; Tsunawaki,
Kiyokazu; Kuratsuji, Takatoshi

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 54065757	A2	19790526	JP 1977-131443	197711 04
JP 62012253	B4	19870317		
PRIORITY APPLN. INFO.:			JP 1977-131443	A 197711 04

AB **Alkanesulfonic acid metal salts** are mixed with
>10 wt.% of powd. (<1000 μ diam.) **polyester** to give
caking-resistant compns. which are blended with a similar
polyester and spun smoothly to give **antistatic**
fibers. Thus, Na dodecanesulfonate [2386-53-0] 20,
polyethylene glycol (mol. wt. 20,000) 80, and poly(ethylene
terephthalate) (I) (100 μ diam., softening temp. 262°) 20
parts were mixed to give a compn. which did not cake after 1 wk in
an atm. of relative humidity 90%. A mixt. of 120 parts of the above
compn. and 1480 parts I was melted, pelletized, dried, spun through
48 0.3-mm-diam. orifices at 290° and 80 g/min, wound at 1500
m/min, and drawn 320% at 85° to give 150-denier/48-filament
yarn having static half life 0.5 and 1.5 s before and after 10
laundering.

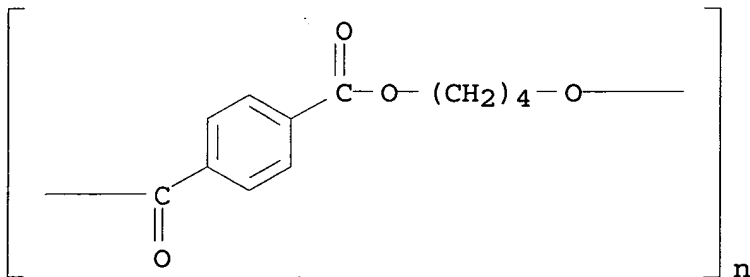
IT 24968-12-5 26062-94-2

RL: USES (Uses)

(dispersing agents, for sodium alkanesulfonates in polyester fibers)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

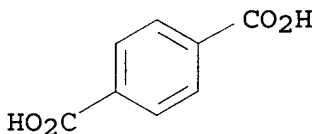
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC C08L067-02; C08J003-22; C08K005-42

CC 39-2 (Textiles)

ST sodium dodecanesulfonate antistatic agent;
polyester fiber antistatic agent; dispersing agent
antistatic compd

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)
 (antistatic agents for, sodium alkanesulfonates as,
 dispersing agents for)

IT Polycarbonates
 Polyesters, uses and miscellaneous

RL: USES (Uses)
 (dispersing agents, for sodium alkanesulfonates in
 polyester fibers)

IT Dispersing agents
 (polyesters and polycarbonates, for sodium
 alkanesulfonates in polyester fibers)

IT Antistatic agents
 (sodium alkanesulfonates, for polyester fibers,
 dispersing agents for)

IT 2386-53-0 27193-89-1
 RL: MOA (Modifier or additive use); USES (Uses)
 (antistatic agents, for polyester fibers,
 dispersing agents for)

IT 24936-68-3, uses and miscellaneous 24968-12-5 25971-63-5
 26062-94-2
 RL: USES (Uses)
 (dispersing agents, for sodium alkanesulfonates in
 polyester fibers)

L75 ANSWER 59 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1971:519175 HCAPLUS
 DOCUMENT NUMBER: 75:119175
 TITLE: Fiber- and film-forming aromatic
 polyesters
 INVENTOR(S): Igi, Keishiro; Mizuno, Masao; Kajitani, Koichi
 PATENT ASSIGNEE(S): Kuraray Co., Ltd.
 SOURCE: Ger. Offen., 35 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2063267	B2	19760102	DE 1970-2063267	197012 22
GB 1331103	A	19730919	GB 1970-60897	197012 22
PRIORITY APPLN. INFO.:			JP 1970-824	A 196912 29
			JP 1970-17332	A

197002
28

JP 1970-17333

A

197002
28

JP 1970-17334

A

197002
28

GI For diagram(s), see printed CA Issue.

AB Poly(ethylene terephthalate) fibers were rendered completely **antistatic** and readily dyeable by addn. of Na benzenesulfonate-ethylene oxide adduct (I) to the polymn. melt. The poly(ethylene oxide) chain has a mol. wt. of 600-6000 and I was used in amt. of 1-2%. Other adducts of ethylene oxide, propylene oxide, or styrene oxide with benzenesulfonate, ethanesulfonate, or propanesulfonate were also used.

IT 9020-32-0 9020-73-9

RL: USES (Uses)

(fiber, **antistatic** agents for, alkylene oxide-org.
sulfonic acid reaction products as)

RN 9020-32-0 HCAPLUS

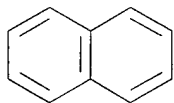
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS

2 [D1- CO₂H]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH₂-CH₂-OH

RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC C08G; D01F

CC 39 (Textiles)

ST **antistatic dyeable polyester fiber; ethylene**
oxide benzenesulfonate adduct

IT **Fiber, polyester, uses and miscellaneous**

RL: USES (Uses)

(**antistatic agents for, alkylene oxide-sulfonic**
acid reaction products as)

IT **Polyesters, uses and miscellaneous**

RL: PREP (Preparation)

(**fiber, antistatic agents for, alkylene oxide-org.**
sulfonic acid reaction products as)

IT **Electric charge**

(**prevention of, on polyester fibers, by alkylene oxide-**
sulfonic acid reaction products)

IT 9019-18-5 9019-19-6 9019-74-3 25322-68-3 26658-95-7

33678-11-4 33968-96-6 33968-97-7 34011-39-7

RL: MOA (Modifier or additive use); USES (Uses)

(**antistatic agents, for polyester fibers)**

IT 1711-24-6 9020-16-0 9020-32-0 9020-73-9

24936-76-3 24980-45-8 25248-22-0

RL: USES (Uses)

(**fiber, antistatic agents for, alkylene oxide-org.**
sulfonic acid reaction products as)

=>